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C O N T E N T S

<p>FROM THE CHIEF 2</p> <p>SURGEON GENERAL'S BIRTHDAY</p> <p style="padding-left: 20px;">GREETINGS TO THE NURSE CORPS 3</p> <p>ANNIVERSARY GREETINGS FROM</p> <p style="padding-left: 20px;">DIRECTOR, NAVY NURSE CORPS 4</p> <p>FEATURE ARTICLES</p> <p>Navy Nurse Corps Directors: A View of the Top . 5</p> <p>Foreign Nurse Observership 12</p> <p>Improved Patient Care Through Orientation 16</p> <p style="padding-left: 20px;"><i>LCDR R.R. Nehr, NC, USN and LTJG R.E. Peterson, NC, USNR</i></p> <p>64th Birthday Celebration of the Navy Nurse Corps, May 1972 50</p> <p>INDOCTRINATION AND MANAGEMENT SEMINAR 20</p> <p>PROFESSIONAL PAPERS</p> <p>Field Neurosurgery Gear for Amphibious Medicine 24</p> <p style="padding-left: 20px;"><i>CAPT F.E. Jackson, MC, USN</i></p> <p>The Concept of the Navy Medical Casualty Regulator 26</p> <p style="padding-left: 20px;"><i>CAPT F.E. Jackson, MC, USN; CAPT N. Wenger, MC, USN; CDR J. DeKrey, MC, USN; LCDR P.R. Patterson, MSC, USN; and LT W. Rawley, MC, USN</i></p>	<p>PROFESSIONAL PAPERS (Con.)</p> <p>The Treatment of Hodgkin's Disease 37</p> <p style="padding-left: 20px;"><i>CDR E. Perlin, MC, USN</i></p> <p>Panoramic Radiography in the Diagnosis of Antral Pathology: Report of a Case 44</p> <p style="padding-left: 20px;"><i>CAPT E.G. Mainous, DC, USN and LCDR D.D. Hammer, DC, USN</i></p> <p>The Gastroenterologists' Corner — Gilbert's Syndrome 46</p> <p style="padding-left: 20px;"><i>CDR M.F. Fornes, MC, USN</i></p> <p>ERRATA 49</p> <p>COMMAND CHANGES IN FY 73 30</p> <p>LETTERS TO THE EDITOR 53</p> <p>NOTES AND ANNOUNCEMENTS</p> <p>Participation in US NAV MED 55</p> <p>Age Limitations for Naval Reserve Officers 55</p> <p>ACDUTRA for Naval Reservists Officer - Enlisted 55</p> <p>Fluoridation Saves Teeth, Dollars and Dental Manpower 56</p> <p>Naval Reserve Medical Department Promotions 56</p> <p>RADM Selectee W.J. Mills, Jr., MC, USNR 57</p> <p>Association of Military Surgeons of the U.S. Awards 58</p> <p>Official Instructions and Directives 59</p> <p>In Memoriam 59</p>
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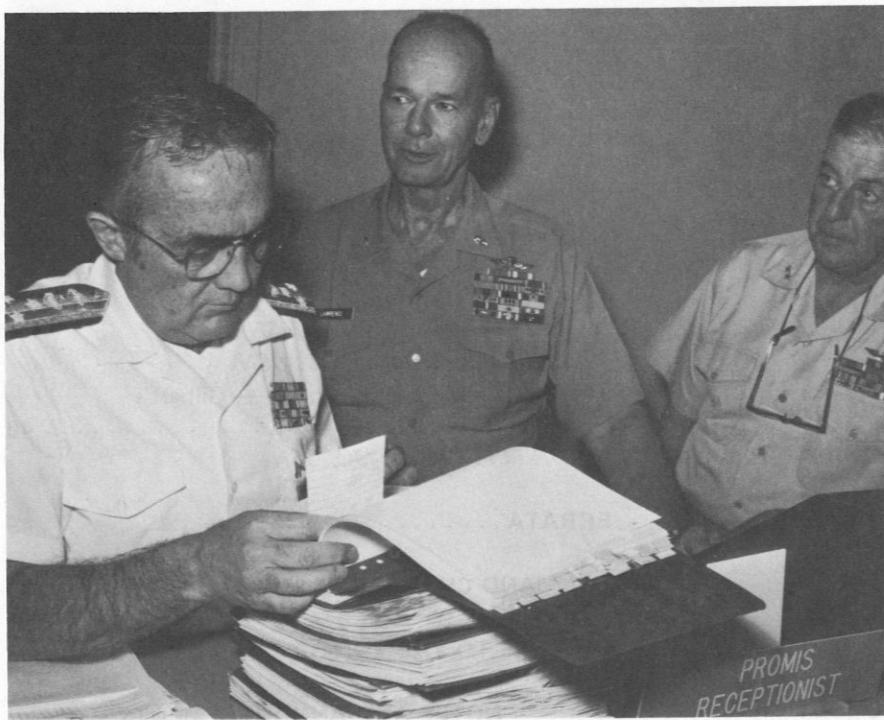
Credits: All pictures are Official U.S. Navy Photographs unless otherwise indicated.

In the spirit of May, the birthday month of the Navy Nurse Corps, four fair Navy nurses are pictured on our front cover. Modeling official Navy uniforms before the entrance to Naval Hospital Pensacola, Fla., these professional ladies and naval officers are proud members of a Corps established 65 years ago. Long may they flourish.

The photo on page 2 shows Surgeon General VADM Donald L. Custis, MC, USN (left) reviewing a Problem Oriented Medical Information System (PROMIS) record in the PROMIS Laboratory during a recent visit to the Naval Aerospace and Regional Medical Center. CAPT Richard Lawrence, Jr., MC, USN (center) is a member of the staff of RADM Oscar Gray, Jr., MC, USN (right), CO of the Center. (Courtesy of the PAO, Naval Aerospace and Regional Medical Center, Pensacola, Fla.)

The continued support of Ms. S.B. Hannan, BUMED Code 2133, and the Illustration and Exhibits and Photography Divisions of the Medical Graphic Arts Dept., Naval Medical Training Institute, NNMC, Bethesda, Md., is gratefully acknowledged.

from the Chief



The first Corps of the Navy Medical Department to be created by Congress, to assist the Medical Corps in its great task of caring for the sick and injured of the Navy was the Hospital Corps. It was established on 17 June 1898 in the midst of the Spanish-American War.

Although the Surgeon General was authorized by the Navy Department to employ and subsist trained nurses in 1899, their number was not to exceed 20 at any one time, nor was their pay to exceed four dollars per day. Not until 13 May 1908, however, was the Navy Nurse Corps established by Act of Congress; one superintendent, and as many chief nurses, nurses and reserve nurses as necessary, were authorized.

The bountiful advantages of their creation continue to be felt, for since their inception, no significant crisis or ordeal confronting the Medical Department has been met and stayed without the dedicated support and fortitude of the Hospital and Nurse Corps. As an individual medical officer and as Surgeon General of the Navy, I have been long convinced of the loyal, professional integrity of the men and women who so serve.

Whether in combat or safe harbor, at sea or ashore, in hospitals or dispensaries, the men and women of the Hospital and Nurse Corps render to our patients the most intimate, comforting and salubrious services which man is privileged to provide. Apart from the academic quality of medical management, our patients gauge the effectiveness of their medical treatment by the responsiveness and concern of the nurses and hospital corpsmen to whom they are entrusted. It is a trust inviolable.





THE SURGEON GENERAL OF THE NAVY
WASHINGTON

TO THE OFFICERS OF THE NURSE CORPS

On the occasion of the Sixty-Fifth Anniversary of the Nurse Corps may I extend to each of you my personal thanks for your superb performance and dedicated support. Our goal in this time of great challenge is to strive for even greater excellence in our health care delivery system. It is a goal that will demand the most of our abilities, our innovative thinking, and our initiative.

I know that I can rely on your skill and devotion to duty for these factors have always epitomized the strength of your Corps and we shall need them in great abundance in the years ahead. Change is everywhere and change we must if we are to meet the challenges that face us. With your continued support I know we will.

Happy Birthday.

D. L. CUSTIS
Vice Admiral, MC, USN



DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
WASHINGTON, D.C. 20390

ANNIVERSARY GREETINGS FROM DIRECTOR, NAVY NURSE CORPS

As the sixty-fifth anniversary of the establishment of the Navy Nurse Corps approaches, I wish to extend my warmest personal greetings and best wishes to each of you.

Since the establishment of the Corps, Navy Nurses have met the challenge of their mission with professional competence, leadership ability and a dedication to duty second to none. Today, as in the past, Nurse Corps officers in many parts of the world are demonstrating that they are, and always shall be, committed to the fundamental responsibility of nursing, that of conserving life and promoting health.

Within the past year, I have had the opportunity to observe at close hand the work of our nurses on my visits to hospitals and dispensaries around the world. It is inspirational to see how readily our men and women become vital members of the health care team and aptly apply their special expertise in the various settings.

Over the years we have been a part of many changes and innovations in health care delivery. Today you can look forward to being even more involved in the dynamic changes that will utilize to the fullest your talents as Nurse Corps officers.

With sincerest appreciation for your loyal support, dedicated service, and individual contribution, I wish you a very happy anniversary.

Alene B. Duerk
ALENE B. DUERK
Rear Admiral, NC, USN

Navy Nurse Corps Directors

A View of the Top

For over 65 years, the destiny of the Navy Nurse Corps has been strongly influenced by those remarkable women to whom was entrusted its administration and leadership. Such women, to their everlasting credit are responsible for the evolution of an elite, highly qualified, professional Corps with an established position in the naval service. During the current anniversary month of the Navy Nurse Corps, it seems fitting to spend a few moments reflecting on the policies, concepts and accomplishments of past leaders who shaped the course and direction of that Corps.

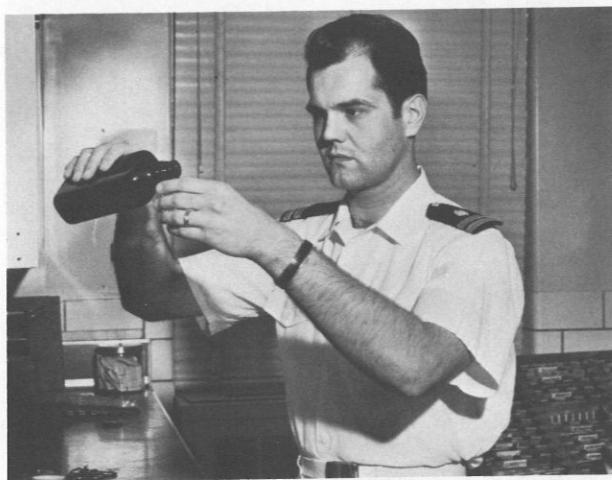
The Navy Nurse Corps was established by Act of Congress on 13 May 1908. On 18 August Esther Voorhees Hasson took the oath of office as the first Superintendent and guided the new Corps administratively. By October, the first 19 nurses were appointed and reported for duty at the Washington Hospital where they received a thorough indoctrination in Naval medicine and Naval customs. Miss Hasson's wise assignment of Navy nurses resulted in the acceptance of the female nurse by the Medical Department and upgrading of patient care.



"THE SACRED TWENTY" — Esther Voorhees Hasson (without cap) shown with the first 19 nurses appointed to the Navy Nurse Corps in 1908. They reported to the U.S. Naval Hospital in Washington, D.C., for indoctrination and duty.



Sara B. Myer, one of the first 20 nurses of the Nurse Corps, worked in a field hospital at Port-au-Prince in Haiti, where the Marines were present to uphold the Monroe Doctrine.



LT Stephen E. Shride, NC, USNR, as seen at work on 25 Mar 1968.

Upon the resignation of Miss Hasson, Mrs. Lenah Sutcliffe Higbee was appointed Superintendent on 20 January 1911, serving in that capacity until she was honorably discharged on 30 November 1930. Mrs. Higbee guided the development of the Nurse Corps in World War I, during which time it increased from 160 members on 6 April 1917 to 1,386 on 11 November 1918. In recognition of her outstanding service during the war years, she was awarded the Navy Cross and remains the only woman to have received this decoration during her life time. (Three other Navy Crosses were awarded posthumously to Navy nurses for service in World War I.) The years under her patient direction solidified the Corps, gave it an identification with the service and provided the opportunity to demonstrate the ability of nurses to sustain a responsible position in the Medical Department.



USS HIGBEE — In 1945, the destroyer HIGBEE, named for Lenah S. Higbee, the second superintendent of the Nurse Corps and one of the first four women of the Navy awarded the Navy Cross, became the first fighting ship named for a woman in the service.

J. Beatrice Bowman was appointed the third superintendent on 1 December 1922. She held the longest tenure of any superintendent or director, retiring 1 January 1935. When appointed, Miss Bowman was the Chief Nurse aboard the *USS Relief*, where she and her staff represented the first nurses of the Navy Nurse Corps to serve aboard a sea-going hospital. Throughout her administration she remained highly active in professional affairs and succeeded in bringing about many progressive innovations. Her farsightedness kept the Corps professionally competent and abreast of new developments in nursing and medicine. Under her direction Navy nurses were assigned to courses of instruction in dietetics, anesthesia, physical therapy and tuberculosis nursing. One of the greatest achievements during her tenure was the passage of Public Law 217 on 13 May 1926, which provided for the retirement of nurses after 30 years' service, or at the age of 50 years with 20 years of service. Miss Bowman procured for the Nurse Corps a more secure service status and recognition.

During the disarmament phase following World War I, the Nurse Corps was considerably reduced in size, along with all other military forces. When Myn M. Hoffman replaced J. Beatrice Bowman as Superintendent, she had under her direction 330 nurses. A clipping from the *Washington Post* dated 2 January 1935 announced Miss Hoffman's appointment and noted: "Her greatest job is to turn away applicants, as there is already a waiting list long enough to fill the needs of the Corps for the next three years." Following Miss Hoffman's

retirement for physical disability on 1 October 1938, Virginia Rau served as acting superintendent until early 1939.

Sue S. Dauser served as the fifth superintendent from January 1939 until her retirement 1 April 1946. One of her first acts was to organize the Reserve Nurse Corps in accordance with the Naval Reserve Act of 1938, making the reserves an integral part of the Navy. Legislation granted relative rank to Navy Nurses in 1942 and Miss Dauser was given the relative rank of Lieutenant Commander. Later that same year the Pay



CAPT Sue Dauser, the fifth superintendent of Navy nurses and the first lady Captain in the USN, was presented the Distinguished Service Medal by Secretary of the Navy James Forrestal prior to her retirement in 1946.

Bill, Public Law 828 authorized the relative rank of Captain for the Superintendent of the Nurse Corps, making Miss Dauser the first woman to wear the four gold stripes of a Captain in the U.S. Navy. Further legislation was enacted and on 26 February 1944, Public Law 238 granted full military rank to the members of the Navy Nurse Corps. Miss Dauser guided the activities of the Nurse Corps through the war years when the number of nurses increased from 1,778 to 11,086. Navy nurses were assigned to 40 naval hospitals, 176 dispensaries and six Hospital Corps Schools, as well as 12 hospital ships and on air evacuation planes.

While serving as a Chief Nurse in the South Pacific theater, Nellie Jane DeWitt was selected for the superintendency. The passage of the Army-Navy Nurses Act in 1947 established the Nurse Corps as a permanent staff corps of the U.S. Navy and gave its members commissioned officer status. CAPT DeWitt became the first director of the Corps as a permanent staff corps. Under her guidance, an educational program was established and nurses were assigned to schools for instruction in physical therapy, anesthesia, occupational therapy, dietetics, and ward administration. She helped establish a school of nursing in Guam and attended the



CAPT Winnie Gibson, NC, USN, Director of the Nurse Corps, May 1950-May 1954.



CAPT Nellie Jane DeWitt, NC, USN, Director of the Navy Nurse Corps (right) and Mary Martin, star of "South Pacific" (left) were presented gifts by the Elgin American Company in Nov 1949. CAPT DeWitt was serving in the South Pacific at the time of her appointment as Director.



LT Joe Johnson, NC, USN begins a dressing change.



CAPT W. Leona Jackson, NC, USN, Director of the Nurse Corps, May 1954-May 1958.

The Korean conflict necessitated expansion of the Nurse Corps from 1,950 to 3,238 nurses (USN 1515; USNR 1723). CAPT Gibson was instrumental in establishing an Indoctrination Center at the Naval Hospital St. Albans, for all newly commissioned Nurse Corps officers. CAPT Gibson's name was placed on the Retired List on 1 May 1954.

For the next four years, the directorship of the Nurse Corps was in the capable hands of CAPT W.



OB-GYN Nurse Practitioner prepares to do a Pap Smear.

Leona Jackson. When Guam fell to the Japanese in December 1941, Mrs. Jackson had been taken as a prisoner of war. During her tenure as Nurse Corps Director, important legislation and policy changes were introduced. Paramount among these were: "The Career Incentive Act," 1954, provided incentives for members of the uniformed services by increasing certain types of pay and allowances; Nurses qualified in specialties of dietetics, physical therapy, or occupational therapy were authorized to transfer to, and be appointed in the Medical Service Corps; Improvement of career opportunities for Nurse Corps and Medical Service Corps members were developed.

CAPT Ruth A. Houghton relieved CAPT Jackson on 1 May 1958. In her complex responsibilities of administering the Corps, consisting of more than 2,000 professional nurses, CAPT Houghton's concept of the directorship was always expressed in terms of improvement of nursing practice and patient care, and promotion of the personal growth and welfare of her individual officers. The Indoctrination Course was moved to Newport, R.I., and lengthened to eight weeks; Full-time duty under instruction was authorized for graduate studies, and an inservice educational program for short courses, to improve patient care and personnel practices, was developed at the Naval Medical School in



CAPT Ruth A. Houghton, NC, USN, Director of the Navy Nurse Corps, 1958-1962.

Bethesda; Nurse Corps officers were authorized to attend the Navy Management Course, U.S. Naval Post-graduate School, Monterey, Calif.

Following CAPT Houghton, Ruth A. Erickson served as Director of the Nurse Corps from 1962 to 1966. She stressed progressive improvements of nursing service administration and nursing practice, continuing opportunities for the advancement of Nurse Corps officers and the expansion of nursing education programs. An anesthesia program was established at Bethesda under the aegis of George Washington University; The Navy Nurse Corps Candidate Program was revised to permit two years of subsidized education for qualified nursing students, and; The Navy Enlisted Nursing Education Program was revised to allow qualified hospital corpsmen to participate.

Male nurses were commissioned in the Nurse Corps and, in October 1965 the first group of men as Nurse Corps officers reported for a course of indoctrination at Newport.

CAPT Veronica M. Bulshefski took the helm of administration in 1966. During her time in office nurses were assigned to the Medical Department at NSA, DaNang, and to the hospital ships USS *Sanctuary* and USS *Repose*, to care for the casualties of the Vietnam conflict. Male nurse officers were assigned to the

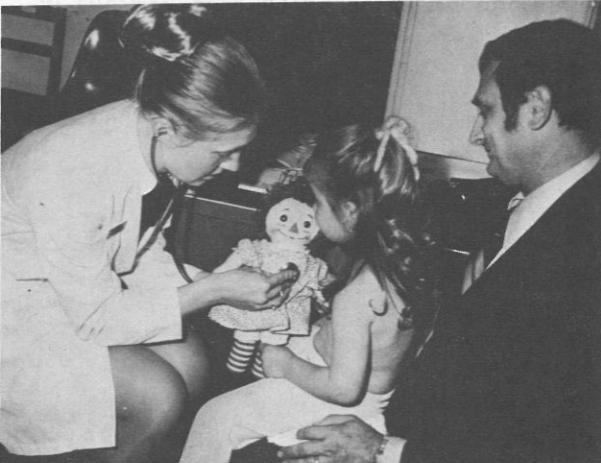


CAPT Ruth A. Erickson, NC, USN, Nurse Corps Director, 1962-1966.



CAPT Veronica M. Bulshefski, NC, USN, Nurse Corps Director, 1966-1970.

Military Assistance Command, and male nurse anesthetists to COMPHIBPAC WestPac. CAPT Bulshefski was present for the signing of Public Law 90-130, which gave nurses equal promotion opportunity with line officers to senior grades and instituted the "pass-over" system for the Nurse Corps. Specialty courses in Operating Room Nursing and Orthopedic Nursing were



Pediatric Nurse Practitioner, LT Barbara Robinson finds it expedient to check Raggedy Ann in the course of a well-baby physical examination.



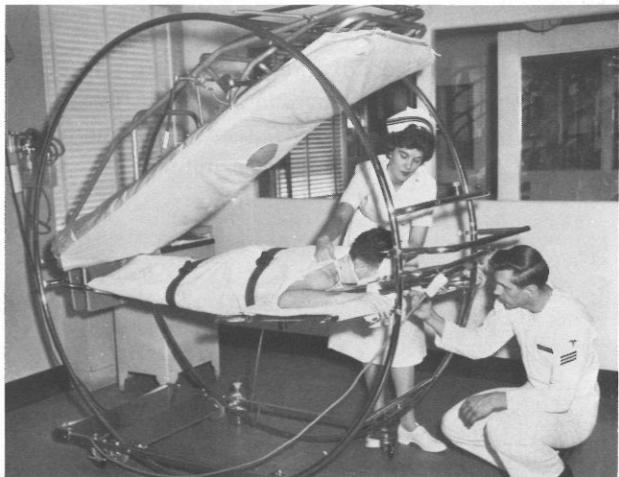
RADM Alene B. Duerk, NC, USN, Director of the Navy Nurse Corps answers questions of military dependent students at the high school in High Wycombe, England.

established and a Nurse Corps officer was assigned to full-time duty on the Navy Medical Inspector General's staff.

The present Director has earned the distinction of being the first woman in the naval service to be appointed to the grade of RADM. While this fact alone distinguishes Admiral Alene B. Duerk, her achievements and accomplishments as Director warrant substantial recognition in their own right. During her time in office she has traveled extensively, actively promoting open lines of communication and wholeheartedly supporting the people-oriented policy of the modern Navy. Her time in office has been characterized by innovations in the health care delivery system and the expanded role of the nurse officer. Educational programs have been implemented to prepare Nurse Corps officers for the role of Pediatric Nurse Practitioner or OB/GYN Practitioner, and some form of educational opportunity is available to everyone.

A facilitator for full utilization of human resources, RADM Duerk stresses the assignment of Nurse Corps officers within their specialty, a policy which has enhanced individual job satisfaction and dramatically increased the retention rate. Admiral Duerk believes in equal opportunity for all and is a staunch advocate for the complete utilization of the male nurse in areas of patient care, teaching and administration. She supports progressive management of nursing services and encourages staff development through continuing education. Admiral Duerk has played an important role in leading the Nurse Corps to its present level of achievement,

making it a vibrant Corps, highly respected by military and civilian professionals throughout the world. At a time when those with less vision and resilience might have faltered, overcome by the gigantic demands of revolutionary concepts in nursing service, RADM Duerk has met the challenge with such energy and enthusiasm as may often transform potential adversity into ultimate advantage. In its choice of the first lady admiral, the Navy has been undeniably astute. Far from tokenism, the selection was a prudent choice at a critical point in time for the Navy Medical Department. It was historically appropriate, professionally sound and militarily realistic.



Adjusting head support for paraplegic patient in a circular bed.



Educational continuum.

and the experience gained from the program will be used to improve the quality of medical care available to our patients. The Foreign Nurse Observership Program is designed to provide foreign military nurses with an opportunity to observe and learn about the U.S. Navy's medical facilities and procedures. The program is intended to familiarize participants with the U.S. Navy's medical system and to help them better understand the U.S. Navy's medical practices and procedures. The program is also designed to help participants develop their own medical skills and knowledge, and to help them better understand the U.S. Navy's medical system and to help them better understand the U.S. Navy's medical practices and procedures.

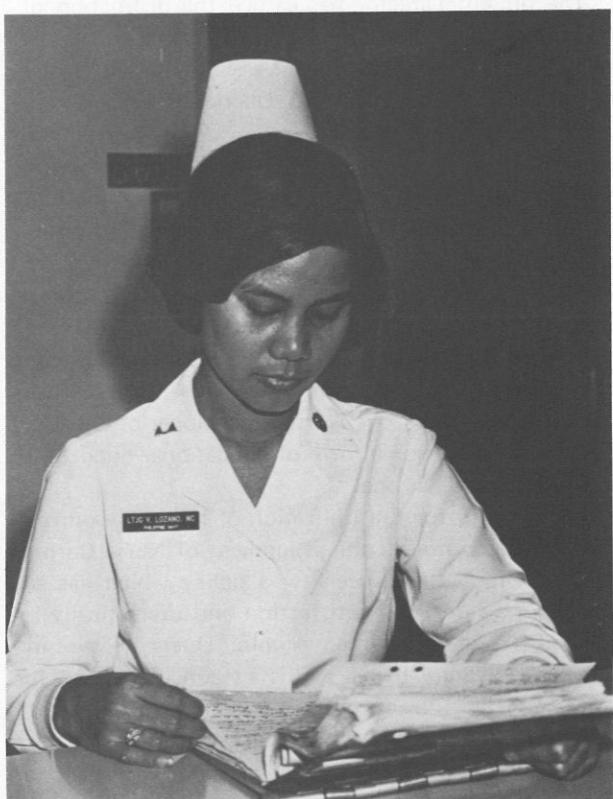
Foreign Nurse Observership

Nurse Corps officers of foreign navies are afforded the opportunity to participate in a Foreign Nurse Observership under a Military Assistance Training Program. The program familiarizes military nurses of

Recently, LTJG Victoria M. LOZANO, a Nurse Corps officer in the Navy of the Republic of the Philippines completed a six-month observation period at the Naval Hospital Oakland. Conducted by the

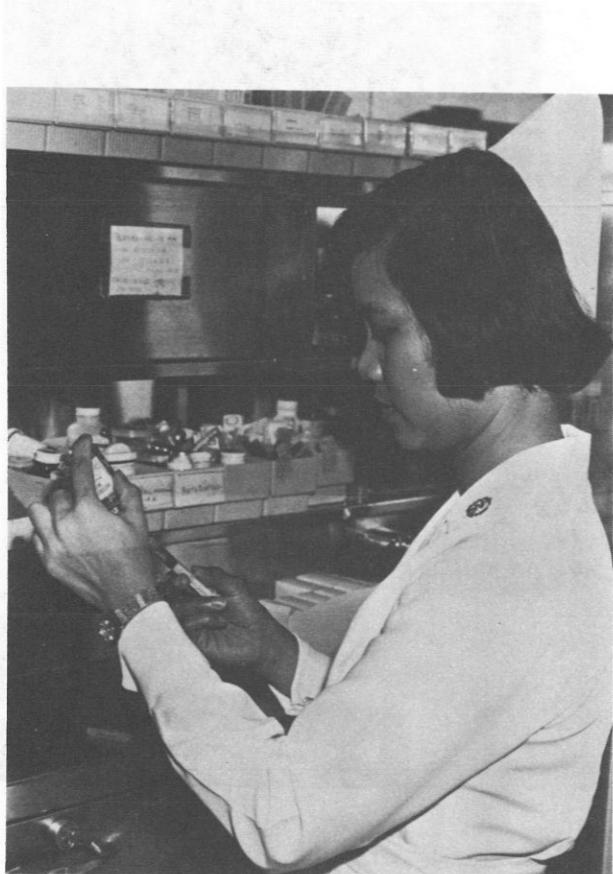


friendly allied countries with nursing practices and nursing service administration in the United States Navy and prepares participants for nursing service responsibilities in their own armed services.



Nursing Service, the course consisted of lectures, demonstrations, observation, seminar discussions, and department tours.

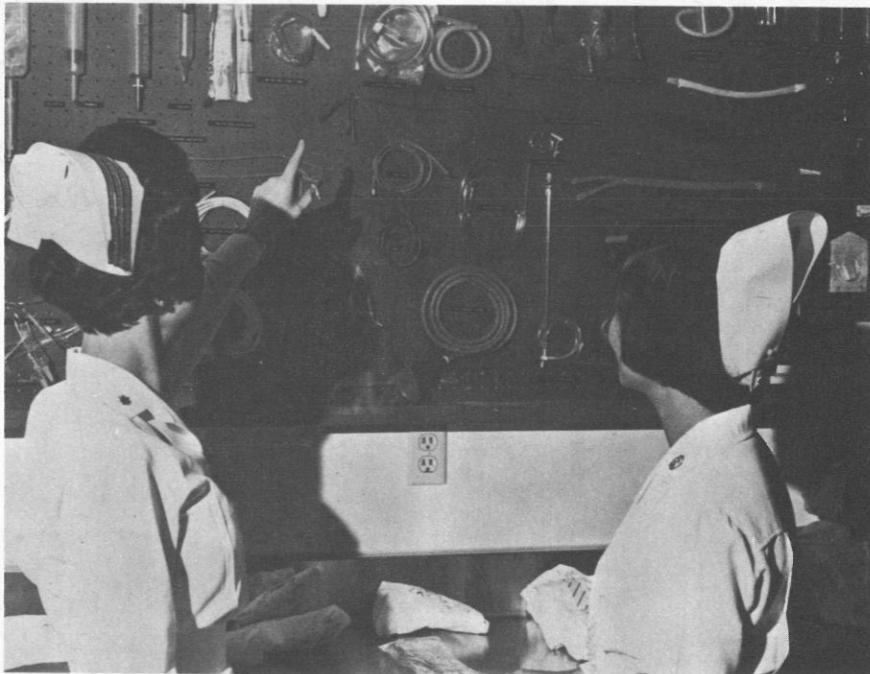
Before returning to her own country, LTJG Lozano

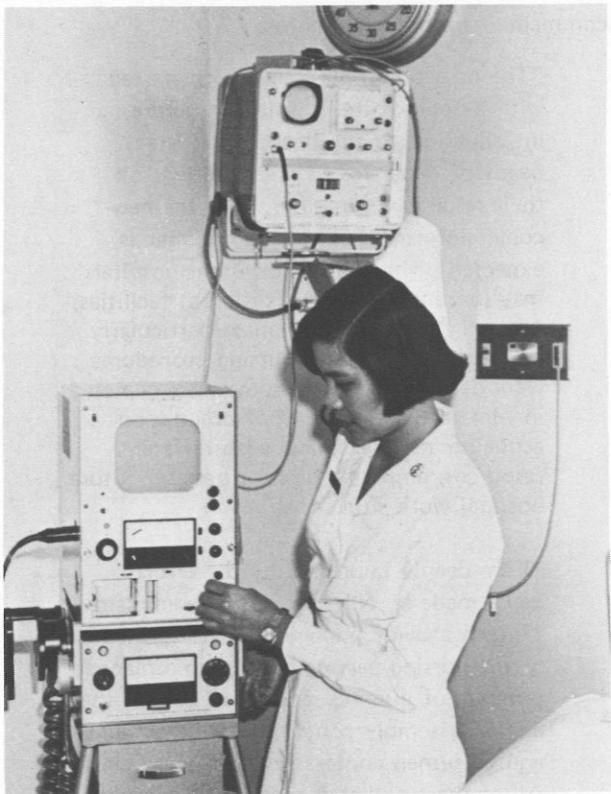


commented on her experiences:

"The orientation program which started with a tour of the physical structure, introduction to the heads or assistant heads of departments and briefings on their respective functions, kept the newcomer informed and aware of what is expected of her. Since different hospitals may present unique and different facilities, I found the orientation phase particularly interesting when ward nursing procedures were demonstrated and sometimes depicted in film strips. This kind of orientation acquaints new personnel with different resources, preparing him (or her) for future hospital work situations.

"I am deeply impressed by the efforts being made by Nursing Service administration, to provide opportunities for growth of the nursing personnel through a planned program of inservice education held at the clinical assembly conferences, charge nurse and corpsmen conferences, and ward classes. All of these activities represent an important means of disseminating information to all members concerning the contributions of various disciplines for improving total patient





На спасительной миссии во время
извержения вулкана на Гватемале
врачей и медсестер было
много, помогавших им в работе.



care. The use of audio-visual aids to emphasize points of current interest, consistently kept minutes and reports of meetings conducted by the Nursing Service provide further impetus for superior nursing care rendered by well-informed personnel.

"By assignment to different areas in the hospital for a period of one week each, I enjoyed many opportunities to operate various modern electronic instruments, providing nursing care to patients for whom these modern electronic devices were employed. Such equipment included the following: cardiac and fetal monitors, kidney machine, inhalation therapy

apparatus, defibrillators and laboratory equipment.

"Truly, my six-month experience at the Naval Hospital in Oakland has been challenging, interesting, informative and rewarding; because of it I have developed a spirit of optimism and faith in meeting the manifold challenges to come. Extending the knowledge and experience gained, I hope to build upon the foundation provided at Oakland."

Programs such as this enhance the objective of world peace, helping to promote better health and welfare of people throughout the world by improvements in nursing care. ☺



ORDEAL ENDED.—Returning home after 4.5 years of imprisonment by the North Vietnamese, LT William J. Mayhew, USN (center) entered the Bethesda Naval Hospital on 18 March 1973, escorted by CAPT S.R. Johnson (left), Coordinator of Operation Homecoming efforts at Bethesda, and CAPT D. Earl Brown, Jr., MC, USN (right), CO, Nav Hosp Bethesda. (Photo by PH1 C.R. Pedrick) ☺

Improved Patient Care

Through Orientation

By LCDR Rosalie R. Nehr, NC, USN
and
LTJG Richard E. Peterson, NC, USNR;
Assistant Coordinators, Nursing Inservice Education,
Naval Hospital Great Lakes, Illinois.

The philosophy of the Nursing Service Department, Naval Hospital Great Lakes, Ill., embraces the practice, obligation and desire to provide comprehensive nursing care for each patient from the time of admission to release to active duty, home and society. Navy nurses who care for these patients are active participants in the Navy patient-care team. Promoting the personal and professional growth of nursing personnel, through effective administrative practices and continuing education, helps nurses provide better nursing care.

The Navy nurse assumes the responsibility for staff development. Charge nurses must assume responsibility for the professional actions of all nursing personnel. For this reason, the Nurse Corps officer should know the abilities and limitations of the team members working under his (or her) guidance.

The opinions expressed in the above article are those of the authors and are not to be construed as reflecting the views of the Navy Department or the naval service at large.

This paper was presented at the Third Annual Spring Symposium of the Naval Hospital Boston, Chelsea, Mass., in May 1972.

Patient-care team members in the hospital include Hospital Corps personnel. Hospital corpsmen receive four months of basic preparation in prescribed areas of anatomy, physiology, pharmacology, and nursing procedures. They also engage in supervised clinical patient-care activities prior to assignment as hospital corpsmen on specific wards. Many facets of patient care which, traditionally, have been duties of the nurse are absorbed by hospital corpsmen on the wards. These duties include direct patient care, administration of medications and treatments, and implementation of doctors' orders. The Navy nurse must recognize the corpsman's abilities, as well as his limitations in providing patient care.

Instructing staff hospital corpsmen in the areas of patient care, ward administration and procedures is the responsibility of the nurse. Preparing the men to assume increased responsibility and to realize their full potential on independent duty are the ultimate goals of ward-teaching programs.

In addition to hospital corpsmen, civilian nurses and nursing assistants are assigned to clinics and wards where the family members of Navy men receive medical



INHALATION THERAPY TECHNIQUES.—LCDR John Angel, MC, USNR (right) presents an important aspect of patient-care services rendered by special departments.

treatment. The Navy nurse has the responsibility of orienting these persons to the hospital and assisting them in adaptation to military nursing procedures.

Using the guidelines specifically formulated for their role as nurse aids, senior and junior volunteers assist in the care of patients throughout the hospital under the supervision and guidance of Navy nurses.

Because of the many functions and responsibilities of the Navy nurse, newly appointed Nurse Corps officers require a comprehensive orientation program to assist them in assuming their various roles as practitioners, administrators and instructors. A comprehensive orientation program is essential to acquaint the new graduate with countless opportunities to fulfill his role as a Navy nurse and to refine his nursing skills.

The philosophy and objectives of the Nursing Service Department entail proficient and personalized patient care, and the utilization of all available personnel resources. The Nursing Service Department strives to promote personal and professional growth, insuring a high standard of health care and professional satisfaction. In keeping with these objectives, the Nursing Inservice Education Department staff have developed an eight-week orientation program for newly appointed Nurse Corps officers.

Upon completion of the orientation program, the new graduate nurse should:

- 1) Conform to safe and acceptable standards of medical care in the practice of nursing.
- 2) Practice a highly professional level of nursing through mature application of knowledge and skills acquired through basic nursing education programs.
- 3) Accept and carry out the responsibilities of

charge nurse as evidenced by demonstrated ability in management, teaching and nursing.

- 4) Understand and be able to identify overall duties of the chief of Nursing Service, supervisors, medical personnel, and corpsmen.
- 5) Develop interpersonal relations and use therapeutic communication techniques.
- 6) Know and practice the responsibilities, privileges and roles of the Navy Nurse Corps officer.

During the first week of the eight-week program, various hospital departments are visited. Each department chief explains the service and administrative aspects of his area in relation to the care of patients. Department heads, including those in charge of Supply, Medical Records, Housekeeping, Food Service, X-ray, Inhalation Therapy and the Operating Room, discuss their functions and outline the varied channels whereby their services are acquired. Emphasis is placed on the necessity for inter-departmental cooperation to provide continuous and optimum service to the patient.

From the second through the eighth week of the program, the orientee is assigned to a given clinical area: Orthopedic, Medical, Surgical or Dependent services. Consideration is given to the preference of the orientee, the particular needs of the orientee and the staffing needs of the area when these assignments are made. Ward duty hours are 0700-1200 and the orientees work with the regularly assigned charge nurses.

During this time, assisted by the charge nurses, the orientee develops skills in ward administration and in methods of teaching the hospital corpsmen. The In-service Department staff serve as resource persons and help the charge nurses to exercise their responsibilities in orienting the new staff member to the ward setting. Nursing supervisors meet with the new nurses assigned



THE PRIMARY GOAL—PATIENT CARE.—Orientees prepare to assume multiple roles as Navy nurses: to care for patients, teach their staff and administer their wards.

to their areas, and, in fact, select appropriate wards in their areas to meet the particular needs of the individual orientees. Supervisors introduce new nurses to the charge nurse in the unit.

Classroom instruction is presented throughout the eight-week orientation program on a daily basis, from 1300 to 1500 by Nursing Inservice Education staff, medical officers, and chiefs of special departments. When a special procedure, such as kidney or liver biopsy, thoracentesis or peritoneal dialysis is performed in an area other than that in which orientees are assigned, they are given the opportunity to observe the procedure. In addition to assisting in, or observing special diagnostic studies, procedure-oriented classes which relate to this particular hospital and available equipment are held. Nursing Procedure Manuals and Great Lakes Hospital Instructions are used as guidelines in presenting classes. Orientees are invited to share their experiences during a portion of each class period. The Inservice staff emphasizes the problem-solving approach in dealing with difficult situations. Peer rapport is evident as the neophytic Nurse Corps officers discuss their problem situations.

Some of the learning experiences which are offered include appropriate aspects of blood drawing; intravenous therapy, including fluid and electrolyte balance; oxygen and inhalation therapy techniques; tracheostomy care; catheterization; administration of medications; and the use of equipment. Administrative and managerial responsibilities of nurses and hospital corpsmen are discussed.



BALANCED SUSPENSION AND ORTHOPEDIC NURSING CARE.—On-the-job orientation is provided for new Navy nurses by LTJG Peterson, NC, USNR, Assistant Inservice Coordinator (second from the right).

Whenever suggestions for adding additional experiences to the program are made, these recommendations are evaluated in the light of overall needs, and serious consideration for their incorporation into the orientation program is given. For example, orientees in the past have expressed a desire to participate in activities of the Medical Air Evacuation Team; this experience has been added to the program. Inservice staff members make arrangements for the nurse to travel to the airport to meet and care for the patients making the trip from the airport to the hospital.

To date seven groups have completed this initial eight-week program and the orientees appear consistently eager and enthusiastic. It is evident that most of them are well prepared in the theory of nursing; however, they do require continued support in terms of independent practice, teaching, and management.

Orientees submit periodic written evaluations of the program, presenting their views on the ward experiences, classes with inservice personnel, and classes conducted by chiefs of departments. Supervisors are also requested to prepare evaluations of the orientees' progress. The supervisors can also utilize these evaluations as tools in counseling the nurses assigned to their areas. Although the orientees are under the supervision of the Inservice officers, they are encouraged to communicate with the nursing supervisors as they progress through their orientation. Communicating directly with the supervisor enhances the understanding of orientees who may then more readily accept their responsibilities in the Charge Nurse - Supervisor relationships.

Active participation by orientees is required throughout their experience; it is essential that they develop confidence. The young graduate comes to the Navy



PROGRESS CONFERENCE WITH THE CHIEF NURSE.—The Nursing Service Chief, CAPT Romaine Mentzer, NC, USN (fourth from left) meets with orientees to discuss their experiences.



DOCTORS' ORDERS AND THE NURSING KARDEX.—LCDR Rosalie Nehr, NC, USN, Assistant Inservice Coordinator (left) orients newcomers toward patient care. Kardex helps nurses to communicate from shift to shift.

with an inquisitive and exploring approach to nursing. With proper handling, direction and guidance, the complex role of the Nurse Corps officer as part nurse practitioner, part ward administrator, and part instructor begins to unfold during the first few important weeks.

To be effective in this work, directors of the orientation program must, themselves, be skilled practitioners who possess some supervisory experience and a sincere interest in staff development.

Eight weeks is a very short period of time in which to enable the new nurse to adjust to our Naval Hospital

and to his professional role. Direction and guidance are tailored to help the new Nurse Corps officer to become a productive member of the patient-care team. Rotating personnel through the various clinical services of the hospital provides a continuous source of professional revitalization. After completing a three-month tour of duty in each of the four clinical areas, orientees are given an optional choice of an area in which to complete their tour of duty at Great Lakes. In addition to surgical, medical, orthopedic and dependent services, orientees may select from additional specialty areas such as operating room or intensive care and/or coronary care units.

The program as described has been successful, judging from evaluations by orientees, Inservice Education staff and nursing supervisors. Its success largely depends upon the involvement of many interested personnel and a high degree of responsiveness to the needs of the individuals and the objectives of nursing service.

The junior nurses also assist in pinpointing and resolving problems, making changes in the program and adapting the available resources to the needs of the program. The majority of our nursing staff at Great Lakes consists of young, enthusiastic nurses; within their ranks are numerous potential leaders for the future, if only support and guidance are provided in adequate measure at the start, as they assume their positions as members of the Navy patient-care team. As we sow, so shall we reap! ☺



HAPPY CONCLUSION.—The POW whose name was recorded on her bracelet finally returned home, and Mrs. D. Earl Brown, wife of the commanding officer of Naval Hospital Bethesda, presented that bracelet to LT William Mayhew, USN (right). LT Mayhew arrived at the Naval Hospital on 18 March, 1973, after imprisonment in a North Vietnamese prison camp for four and one-half years. ☺

surgeon general's office. After indoctrination and orientation, the new captains will receive one year of postgraduate training in medical and dental administration. This will include a year of study at the Naval Medical Training Institute, followed by a year of clinical and administrative assignments in the Bureau of Medicine and Surgery.

Indoctrination

and

Management Seminar



Surgeon General Donald L. Custis (now VADM, MC, USN), left, converses with VADM Robert E. Adamson, Jr., (right), Deputy CNO (Surface Warfare).



The fourth Indoctrination and Management Seminar for newly selected captains in the Medical and Dental Corps was held at the Crystal City Marriott Hotel, Arlington, Va., from 26 Feb to 2 Mar 1973. Sponsored by the Bureau of Medicine and Surgery, the seminar was presented by the Naval Medical Training Institute, the Naval Graduate Dental School, and the Naval School of Health Care Administration. The purpose of the seminar is to introduce this group of officers to the theory and practice of management at a transition point in their careers when they can be expected to participate in the direction and control of the Navy's health care delivery system.

The program provided a broad range of useful information for the 66 medical and 27 dental officers in attendance. Major topics discussed were Medical Department manpower, training, research and clinical investigation; Fleet and Marine Corps support; military justice and legal medicine; budgeting, logistics and planning; and hospital management. During the last two days of the seminar the Naval School of Health Care Administration staff conducted an intensive program in the theory and practice of management. One of the valuable features of the seminar was the



VADM David H. Bagley, Deputy CNO (Manpower) and Chief of Naval Personnel.

opportunity to establish direct communication with key central personnel.

Seminar directors were RADM David P. Osborne, MC, USN, Assistant Chief for Personnel and Professional Operations; and RADM John P. Arthur, DC, USN, Assistant Chief for Dentistry, and Chief, Dental Division. Course coordinator was CAPT James E. Wilson, Jr., MC, USN, Naval Medical Training Institute.

Notable speakers included VADM Robert E. Adamson, Jr., Deputy Chief of Naval Operations (Surface Warfare); VADM David H. Bagley, Deputy CNO (Manpower) and Chief of Naval Personnel; VADM Donald L. Custis, the Surgeon General; and John C. Lang, Ph.D., formerly Special Assistant for Education, Office of Chief of Naval Operations.

One of the week's highlights was a social hour and dinner held at the Commissioned Officers' Mess (Open), National Naval Medical Center (NNMC), Bethesda, Md., at which the Surgeon General freely answered questions and candidly dealt with topics of current interest presented by the attendees.

Photographic coverage of the event was supplied by the Photography Division of the Media Department, Naval Medical Training Institute, NNMC, Bethesda.



RADM W.C. Turville, MC, USN, Director of Naval Regional Medical Center and CO Naval Hospital Great Lakes, III.



RADM E.J. Rupnik, MC, USN, Assistant Chief for Planning and Logistics, Bureau of Medicine and Surgery, Code 4.



John C. Lang, Ph.D., former Special Assistant for Education, Office of Chief of Naval Operations (CNO).



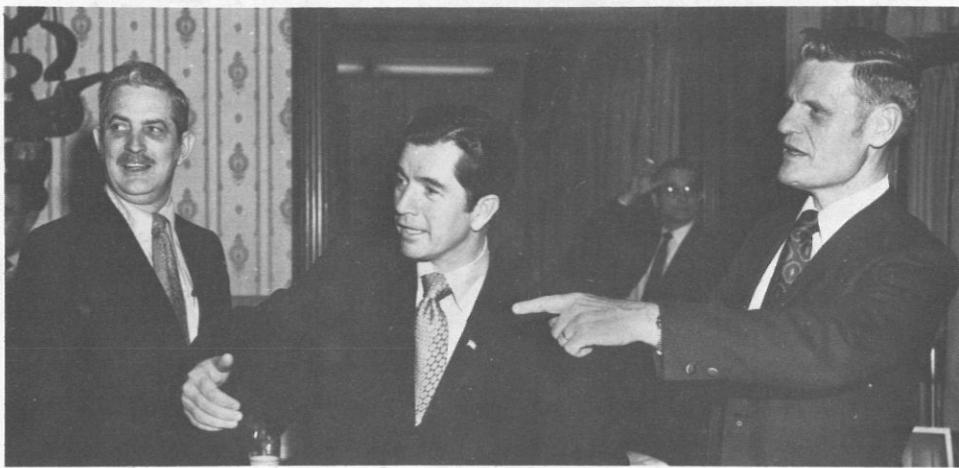
RADM J.P. Arthur, DC, USN (right), Assistant Chief for Dentistry, BUMED Code 6 joins fellow participants CAPT J.W. Cox, MC, USN (left), present CO, Naval Medical Training Institute; and CAPT R.W. Elliott, Jr., DC, USN (center), Head, Professional Branch of Dental Division, BUMED Code 611.



Conducting panel discussion, from left to right are: Deputy Surgeon General RADM H.S. Etter, MC, USN; CAPT J.J. Dean, MSC, USN (BUMED Code 4A); Mr. T.J. Hickey, Comptroller, BUMED Code 14; CDR W.P. Davis, MSC, USN; and CAPT W.E. McConville, MSC, USN.



RADM A.B. Duerk, NC, USN (center), Nursing Division Director, BUMED Code 32 converses with seminar participants.



Field Neurosurgery Gear for Amphibious Medicine

By CAPT Frederick E. Jackson, MC, USN,
Chief, Department of Neurological Surgery,
Naval Hospital Camp Pendleton, California.

By 14 Nov 1972, the Neurosurgery Field Supplement Team No. 1 at Naval Hospital Camp Pendleton had assembled and packaged neurosurgical equipment of excellent quality to equip a neurosurgical team assigned to an LPH, or to serve as the initial neurosurgical equipment for a field hospital.

The supplies and equipment were designed to sustain a neurosurgical team treating an average (two per day)

number of casualties for a total of seven days. Resupply of disposable and expendable items would be required after seven days.

All supplies were packaged individually in heavy plastic, ensuring that all sharp points were individually padded within the plastic. The entire contents were further padded to prevent damage. Following insertion of labels which could be easily read through the plastic





packaging, the units were heat sealed. The packages were then packed compactly into boxes which have now been sealed with metal bands and stored, in readiness for immediate use.

The neurosurgical field gear fits into 16 boxes that occupy a total space of 40 cubic feet and weigh 795 pounds (total weight of gear plus boxes). Test flight loading of the neurosurgical equipment and supplies was accomplished in late 1972 and proved entirely

satisfactory. By arrangement with MAG-16, MCAS (H) at Santa Ana, Calif., a C46 helicopter rendezvoused with the neurosurgical team at the Camp Pendleton Naval Hospital helicopter pad. The neurosurgical equipment and supplies were readily carried aboard and secured on this size helicopter. Neither weight nor cubic volume of the prepared gear posed any problem, and the material proved ready for deployment.

DIAMOND JUBILEE

The 75th Anniversary of the Hospital Corps will be commemorated on 17 June 1973. Let's help our hospital corpsmen to make it a great one.

The Concept of the

Navy Medical Casualty Regulator

By CAPT Frederick E. Jackson, MC, USN, Naval Hospital
Camp Pendleton, Calif.;

CAPT Norman Wenger, MC, USN, COMPHIBPAC,
Amphibious Base, Coronado, Calif.;

CDR John DeKrey, MC, USN, Naval Hospital
San Diego, Calif.;

LCDR P.R. Patterson, MSC, USN, Naval Hospital
Camp Pendleton, and;

LT William Rawley, MC, USN, USS TRIPOLI (LPH-10),
FPO San Francisco, Calif.

HISTORY

Amphibious warfare, per se, began in the dimly lit past of antiquity when an enterprising and ingenious caveman braved the watery element to paddle a log across a lake, forcefully subdue his neighbor, and secure a beachhead on his opponent's land and lady. The first organized military amphibious operations, however, are recorded on the walls of Egyptian statuary, showing the double-pointed Egyptian boats filled with warriors, forcing a passage of the Nile and engaging the Assyrians in land warfare.

The above article was written in early 1973 following Exercise PHIBLEX/MABLEX in which the concept of medical regulating teams and new neurosurgical field block gear were tested. The authors participated in this exercise.

The opinions or assertions expressed are those of the authors and are not to be construed as official or reflecting the views of the Navy Department or the naval service at large.

Several thousand years later a celebrated amphibious operation occurred when Achilles forced the passage of the Hellespont to win by right of arms the hand of Helen of Troy. Although seconded by an able executive officer in *Ajax*, with Agamemnon as commander of the Landing Force, and Ulysses as G=3 (Supply), the invading forces were contained on the beachhead by the able defense of the opposing general, Hector of Troy. After a prolonged (10 years) containment, Achilles sent in a reconnaissance company in a vehicle (the wooden Trojan horse) designed to crack the defenses of the tenacious city of Troy. The plan succeeded, the landing force advanced, and Troy was finally taken on D Day plus 10 years.

The course of history has been profoundly altered by amphibious operations, some successful, but many unsuccessful. To wit: England was invaded in 1066, permanently, by the Norman host from France after

centuries of amphibious raids by the Norsemen. As a result of this invasion the men and the culture of France were assimilated over the centuries by Britain, to her eventual betterment.

In 1346 the descendants of these same invaders recrossed the English Channel and fighting now as Englishmen, retook large parts of northern France for England. Two centuries later the wind, seas and a fighting English admiral, Sir Francis Drake, combined to break the invasion attempt of Spain when the first of the mighty Spanish Armadas was driven into the seas and the ships broken on the rocks of England.

In our own Revolutionary War, amphibious operations provided our most exciting and important victories when Washington thrice crossed the Delaware, gaining for us the victories of Trenton and Princeton over General Lord Charles Cornwallis of England.

Marines have continued to play a prominent part in amphibious operations from the very first operation, teamed with American sailors in 1776 when the blue jackets made a landing at Nassau in the Bahamas. The amphibious landings at Veracruz were the start of the successful campaign to reach Mexico City and the "Halls of Montezuma," where the Marines won the battle at Chapultepec, subsequently symbolized by the red stripe on the trousers of their dress blues.

Except for the unsuccessful Union attempt at amphibious operations in the James Island campaign in the Civil War, amphibious operations played a relatively small part in our Civil War. In the Spanish-American War of 1898, however, they were again essential in putting the Army and Marines ashore in Cuba, from whence they continued the drive to San Juan Hill.

Amphibious operations were of relatively minor import in World War I, except for the transportation of the armies to France provided by the Navy and merchant marine.

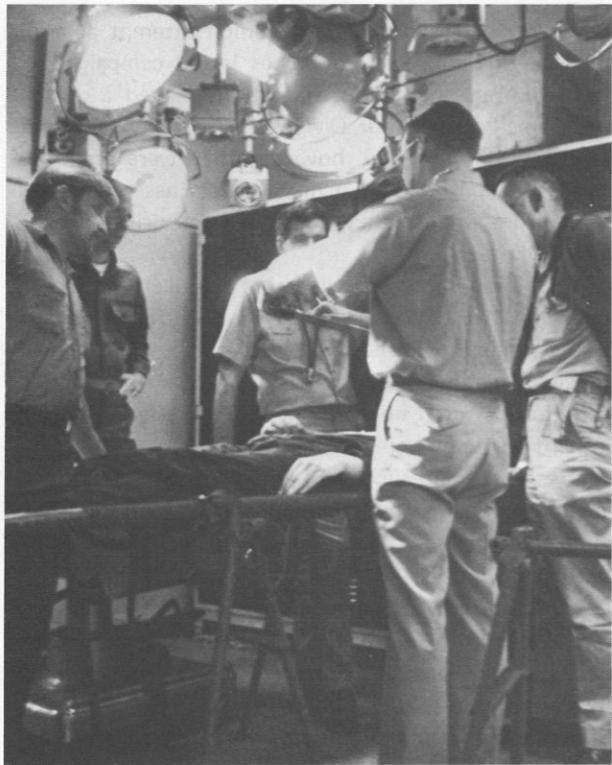
In World War II however, 84,000 landing ships and craft of all types were produced to carry the world's most efficient and successful amphibious task forces to victory in contested landings in a myriad of island campaigns, including those at North Africa, Italy, Normandy, and the islands of the South Pacific.

A tactical gem of an amphibious operation was carried out in the Korean War at Inchon, forcing the flank of the North Korean aggressors and allowing the recapture of Seoul and its airfield.

In Vietnam amphibious operations were constant, with Marine helicopters taking off from LPHs with battle groups and returning their wounded to medical centers ashore at the medical battalions, to Danang,



Simulated Marine casualties from the landing at White Beach, Camp Pendleton are triaged on the hangar deck of USS TRIPOLI (LPH-10) during operation BELLHAMMER (PHIBLEX/MABLEX in Jan 1973).



Shock and resuscitation treatment in medical spaces of USS TRIPOLI. From left to right: SA James Rose, USN; CDR R. Sullivan, CHC; LT William Rawley, MC, USN; CAPT F.E. Jackson, MC, USN; and CDR John DeKrey, MC, USN.

to the hospital ships *Repose* and *Sanctuary*, and to surgical teams embarked on the LPHs.

THE NECESSITY FOR MEDICAL REGULATING

As operations increased during the recent Vietnam conflict, it was seen that certain helicopter characteristics in casualty evacuation were occurring. Namely that, due to lack of current knowledge of operating room capabilities, helicopters were overflying "empty" operating rooms and bringing casualties to familiar or accessible hospitals. Within the limits of the tactical situation, it became apparent that direction of the helicopters carrying casualties to the hospital best able to handle them, would significantly lessen the waiting time needed to get the casualty to the operating room. Additionally, with proper communications, casualties of a specific nature (for example neurosurgical casualties, or eye casualties requiring a specialist) could be sent directly to the facilities having those capabilities.

And lastly, once aboard the ship or at the shore-based hospital facility, the casualty could be more rapidly evacuated to further treatment in CONUS at a specialty hospital, if the administrative work needed for this transfer could be expedited. This would keep the chain of casualty evacuation open, preventing a



Medical regulators in USS TRIPOLI are shown in contact with senior medical regulator in USS JUNEAU. From left to right: HM1 Duffy of 1st Medical Battalion, HM2 Becker of Nav Hosp San Diego, HM2 Floyd from 1st Medical Battalion and HMC D.J. Skaggs, USN.

backlog of patients awaiting evacuation out of country. From these necessities grew the concept of the Navy Medical Regulator.

MEDICAL REGULATING: HOW IT WORKS

As evaluated during Exercise PHIBLEX/MABLEX during Jan 1973 (Operation BELLHAMMER), the casualty receiving and treatment ships [in this instance the USS *Tripoli* (LPH-10), the USS *Durham* (LKA-114) and the USS *Mount Vernon* (LSD-39)] reported first their medical and surgical capabilities, and then their casualties via integral medical regulating teams. These reports went to the senior medical regulator aboard the USS *Juneau* (LPD-10) who was under the direction of the Force Surgeon of the Amphibious Task Force.

The senior regulator aboard the control ship would then evaluate and equitably distribute incoming casualties from the beach to ships able to treat the medical casualties. This distribution was based upon the information that was made available to the senior regulator by helicopters coming from the beach and later, when the Landing Force had activated their field hospital, from the medical regulator at the field hospital supporting the Marines.

Additionally when further blood was required by one ship, or medical personnel replacements were needed, this reassignment was rapidly made by the senior medical officer of the Task Force on the basis of the information received by the medical regulator.

Offloading of recovered casualties back to the replacement center on the beach, or to more distant points in the chain of evacuation, or CONUS, was also coordinated and expedited by the senior regulator.

CONCLUSIONS

There is no doubt that efficient medical regulating expedites equitable and rapid distribution and medical treatment of mass casualties. Additionally it has, and will expedite the return of casualties to their units when their treatment has been completed, or to more distant points in the medical chain of evacuation when required.



New rapid-set adjustable Mayfield neurosurgical headrest, part of the new neurosurgical field gear supplement deployed during OPERATION BELLHAMMER in USS TRIPOLI, is demonstrated by CAPT Jackson (left) for Neurosurgical Technician HN Gilchrist (right) of Nav Hosp Camp Pendleton.

The problem that requires thought and further evaluation at this stage is: What is the right "mix" of medical regulators to other medical and administrative personnel at medical facilities on the beach and in ships? The answer to this problem will be determined in large part by the nature of the amphibious operation, the rate at which casualties are received, the type of ships and medical facilities receiving casualties and the duration of the campaign.

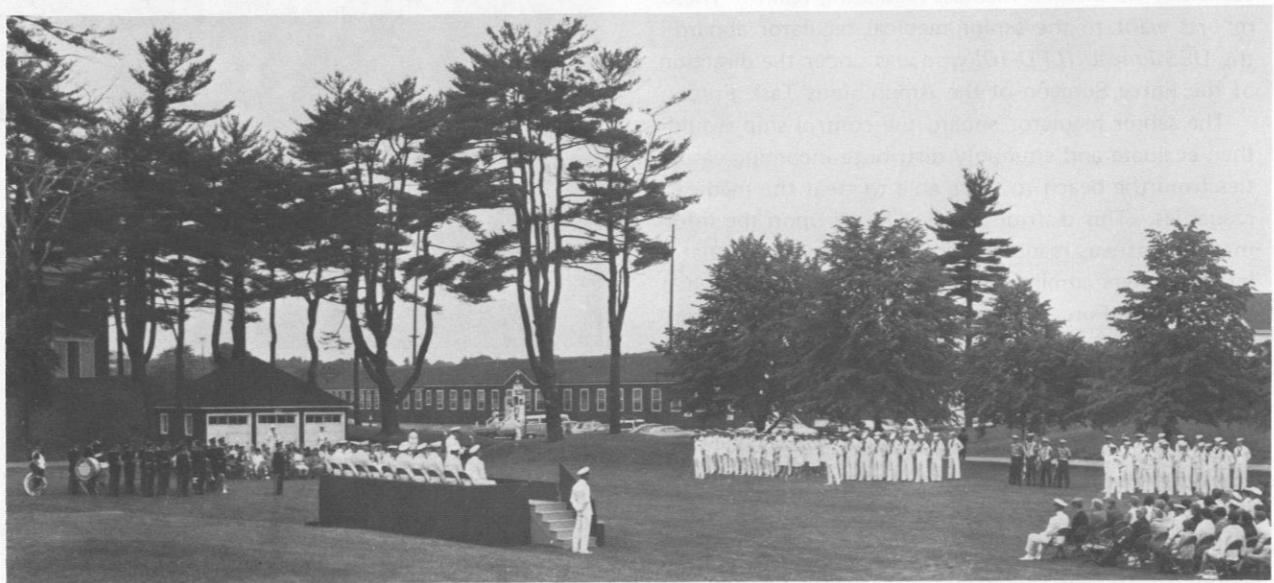
With finite fiscal, personnel and space resources aboard ship, "administrative overkill" must be avoided. The proven need, capabilities and contributions of trained medical regulators has, and will continue to improve the caliber of patient care in the Navy Medical Department. ☑

EARLY RELEASES EXTENDED

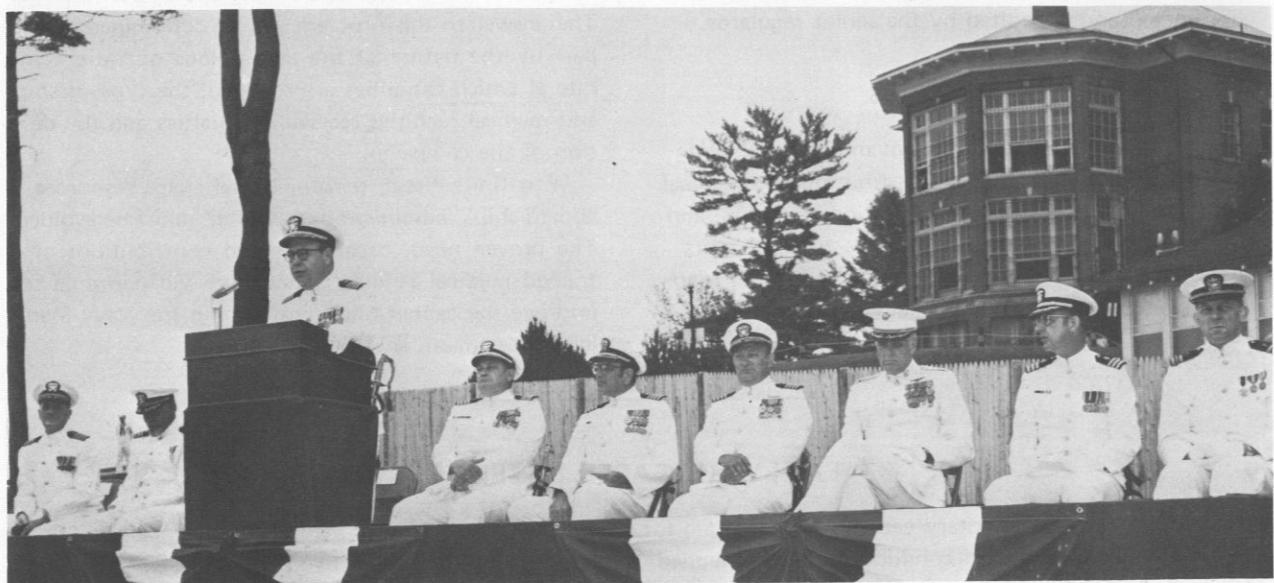
The voluntary early release program for enlisted personnel with marginal performance or substandard conduct has been extended. Established last December by CNO NAVOP 231-72, the program was originally scheduled to end in Feb 1973. NAVOP 43-73 authorized extension of this program.—NAVNEWS No. 0186, 4/6/73. ☑

Command Changes in FY 73

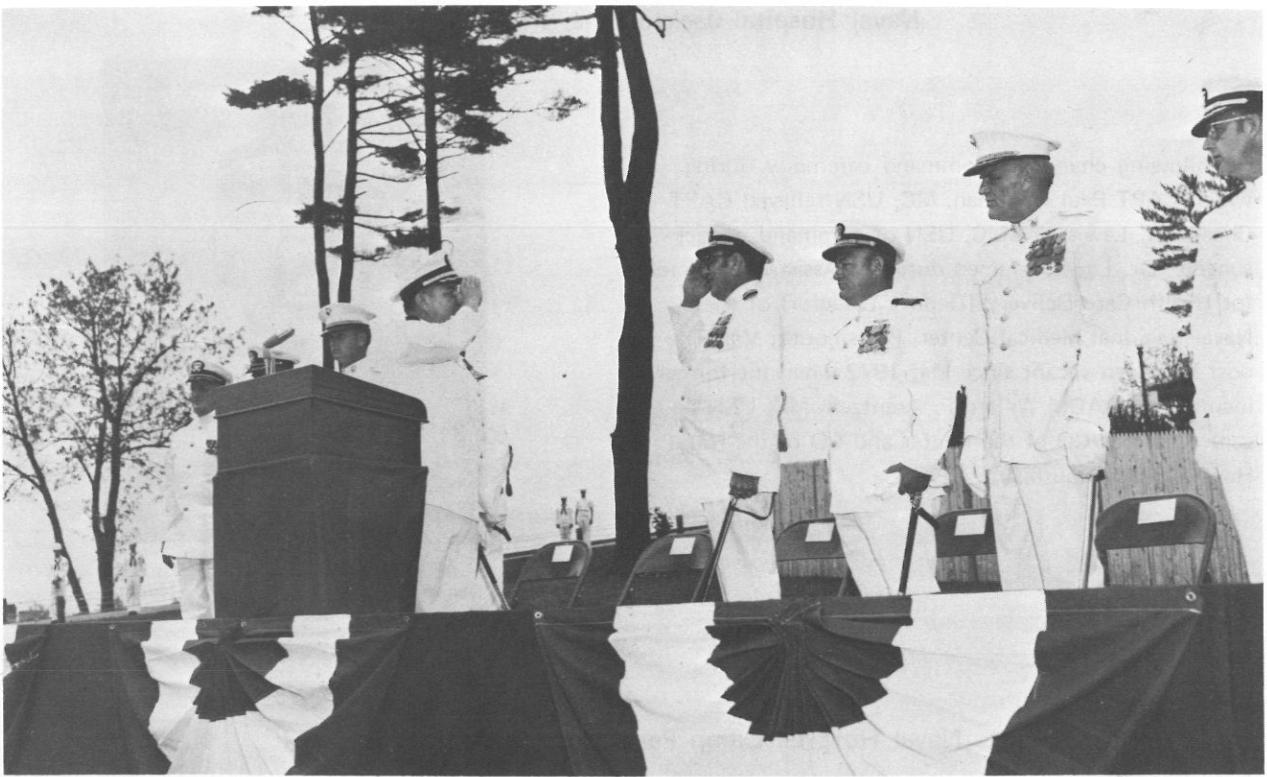
Naval Hospital Portsmouth, N.H., 5 Jul 1972



ALL ASSEMBLED — The 18th Army Band of Fort Devens, Mass. (left foreground) provided rousing musical flourish.



CAPT WESTFALL SPEAKS — Shipyard Commander CAPT Elmer T. Westfall (3rd from the left) and COL Walter E. Domina, USMC, CO Naval Disciplinary Command (3rd from the right) addressed the audience.



"I RELIEVE YOU, SIR." — CAPT J.H. Stover, MC, USN relieves CAPT R.A. Fisichella, MC, USN (right).



FOLLOWING CEREMONY — Standing in receiving line, from left to right are: CAPT R.A. Fisichella, MC, USN; Mrs. Fisichella; CAPT J.H. Stover, MC, USN; Mrs. Stover; and CDR John Leonard, MC, USN, Executive Officer.

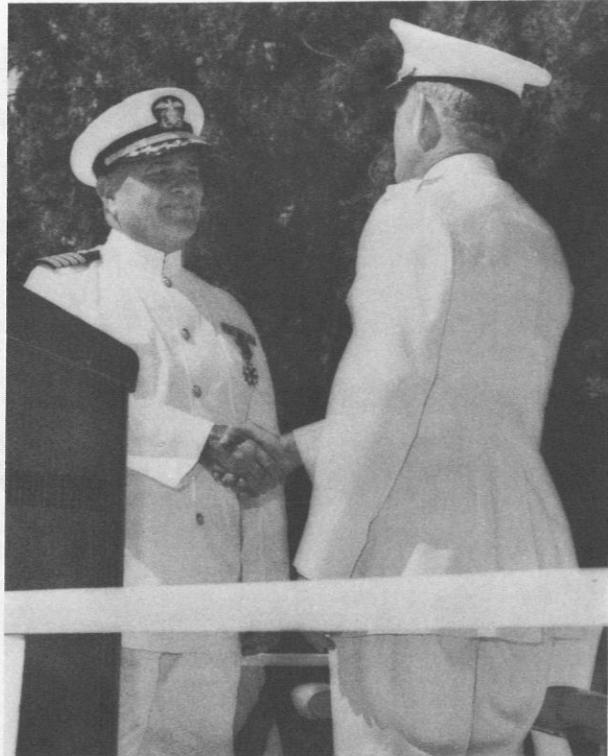
Naval Hospital Jacksonville, Fla., 11 Jul 1972

Following change of command ceremony during which CAPT Paul Kaufman, MC, USN relieved CAPT Charles W. Lewis, Jr., MC, USN of command at Jacksonville, Dr. Lewis assumed duties as Assistant Director for Health Care Delivery (Deputy Director) of the Naval Regional Medical Center, Portsmouth, Va. The post had been vacant since Mar 1972 when the former incumbent, RADM Willard P. Arentzen, MC, USN became Director/CO of the Center and CO of the Naval Hospital Portsmouth, Va.



CAPT Charles W. Lewis, Jr., MC, USN,
Deputy Director of the Naval Regional
Medical Center Portsmouth, Va.

Naval Hospital Camp Pendleton, Calif., 13 Jul 1972



CAPT RICKETSON HONORED — COL E.J. Radics, USMC, Assistant Commander, Marine Corps Base, Camp Pendleton, Calif., congratulates CAPT Ricketson, MC, USN (left) after presenting the Legion of Merit.



READING ORDERS — Prior to relieving CAPT Ricketson, MC, USN (left), CAPT Edward D. Loweecey, MC, USN (right) reads his orders directing him to assume command of Naval Hospital Camp Pendleton.



THE FIRST PIECE IS YOURS — At the reception following the ceremony, with their respective wives at their sides, CAPT Ricketson (left) presents the first piece of cake to his successor, CAPT Loweecey (right).

Naval Hospital Boston, Chelsea, Mass., 7 Sept 1972

CAPT Scott G. Kramer, MC, USN assumed command of Naval Hospital Boston in a colorful ceremony conducted on 7 Sept, when he relieved CAPT Charles C. Muehe, MC, USN.

Guest speakers included RADM Harry S. Etter, MC, USN, representing the Surgeon General; RADM Mayo A. Hadden, USN, Commandant, FIRST Naval District; and CAPT J. Lawrence Kelly, USNR, administrative aide to Governor Sargent of Massachusetts.



READING OF ORDERS — CAPT S.G. Kramer, MC, USN (right) relieves CAPT C.C. Muehe, MC, USN (left).

Hospital Corps School, San Diego, Calif., 4 Oct 1972

Implementing the decision of former Surgeon General VADM Davis that officers of the Medical Service Corps command our Hospital Corps Schools, CAPT Russell E. Hunter, MSC, USN assumed command of Hospital Corps School, San Diego, where he had previously been the Executive Officer.



I ACCEPT — CAPT Russell E. Hunter, MSC, USN (left) accepts command of Hospital Corps School, San Diego.



ADDRESSING AUDIENCE — RADM Herbert G. Stoecklein, MC, USN (extreme right), Director/CO Naval Regional Medical Center and CO Naval Hospital San Diego, Calif., relinquished command of the Hospital Corps School to CAPT Hunter.

Hospital Corps School, Great Lakes, Ill., 12 Oct 1972

The first MSC officer to assume command of the Naval Hospital Corps School, Great Lakes since its founding back in World War I, was CAPT Ralph H. Laedtke, MSC, USN, former Executive Officer at the School.



RELIEVING THE ADMIRAL — CAPT Ralph H. Laedtke, MSC, USN (right) relieves RADM William C. Turville, MC, USN (left), Director/CO Naval Regional Medical Center and CO Naval Hospital Great Lakes.



AFTER THE CHANGE — CAPT R.H. Laedtke, MSC, USN addresses the audience after assuming command of the Hospital Corps School at Great Lakes.

Naval Medical Training Institute, Bethesda, Md., 23 Feb 1973

It was a busy and colorful day on 23 Feb 1973 as RADM Edward J. Rupnik, MC, USN was frocked, relieved of command, and subsequently installed as Assistant Chief for Planning and Logistics, Bureau of Medicine and Surgery, Code 4. CAPT J. William Cox, MC, USN, assumed command of the Naval Medical Training Institute, NNMC, Bethesda, Md.



COMPLETING THE FROCKING CEREMONY — Assisted by Mrs. Rupnik and RADM F.P. Ballenger, MC, USN (right), CO, National Naval Medical Center, Bethesda, RADM Edward J. Rupnik accomplishes first things first.



INSPECTING THE TROOPS — RADM E.J. Rupnik inspects personnel.



PASSING THE TORCH — RADM E.J. Rupnik, MC, USN (left) relinquishes command of the Naval Medical Training Institute to able successor, CAPT J. William Cox, MC, USN (center) as the Surgeon General VADM Donald L. Custis (right) signifies approval. RADM Ballenger, MC, USN is seated behind RADM Rupnik.

Naval Hospital, National Naval Medical Center, Bethesda, Md., 28 Feb 1973



ASSUMES COMMAND — CAPT D. Earl Brown, Jr., MC, USN (right) relieves CAPT E.B. McMahon, MC, USN who served as interim commanding officer at the hospital after VADM Custis assumed the office of Surgeon General.



POW GREETING — CAPT and Mrs. D. Earl Brown, MC, USN receive congratulations and best wishes from former POW, LCDR Ed Davis, USN (right).

CAPT Dudley Earl Brown, Jr., MC, USN assumed command of the Naval Hospital Bethesda, Md., relieving CAPT Edmund B. McMahon, MC, USN in a ceremony held at the hospital on 28 Feb.

Acknowledgment of the assistance and contributions made by Public Affairs offices and officers is due. If your command is represented above, it means that your PAO is working at it.—Ed. 

THE TREATMENT OF HODGKIN'S DISEASE: Experience with 180 Patients at Bethesda Naval Hospital

By CDR Elliott Perlin, MC, USN,
Medical Service, Hematology Branch,
Naval Hospital, National Naval Medical Center,
Bethesda, Maryland.

Treatment of Hodgkin's disease is frequently a gratifying experience for both physician and patient. Indeed, the concept that localized Hodgkin's disease can be cured with aggressive radiation therapy appears to be valid.^{1,2} However, not all patients are so fortunate, particularly those with more advanced disease; a disappointing relapse can follow an initial complete remission. Therefore, continued efforts are being made to improve the treatment of this disease.

In order to improve guidelines for the treatment of our patients, we recently reviewed our own experience with 180 Hodgkin's disease patients treated at the Naval Hospital Bethesda, from 1960 to 1972. This is a report of that survey.

Patients and Methods

The available records from the Tumor Registry at Bethesda Naval Hospital were reviewed. Special

attention was given to the clinical stage of Hodgkin's disease, treatment received, date of diagnosis, and all follow-up reports. The patients were divided into two major groups:

Group 1. Patients whose disease *was not* staged by laparotomy and splenectomy. These are patients treated prior to 1968, for the most part.

Group 2. Patients whose disease *was* staged by laparotomy and splenectomy. These are patients treated in 1968, and later.

The clinical staging of the disease was assigned in accordance with classification proposed at Rye, New York in 1965,³ and modified according to recommendations of the Committee which recently met in Ann Arbor, Mich.⁴ For the patients in Group 2, histologic diagnosis was made according to the classification of Lukes and Butler.⁵ At the time of this report, a review of the histology of Group 1 patients had not been completed.

Patients in Group 1 were treated as listed in Table 1. All patients in Group 2, except all Stage IV patients

The above paper was presented at the Washington Blood Club Meeting on 18 May 1972 at Naval Hospital, National Naval Medical Center, Bethesda, Md.

The opinions or assertions contained herein are those of the author and cannot be construed as reflecting the views of the Navy Department or the naval service at large.

TABLE 1.—125 PATIENTS NOT STAGED BY LAPAROTOMY AND SPLENECTOMY (GROUP 1):
5-YEAR SURVIVAL RELATED TO TREATMENT

Treatment	Number of Patients Alive at					
	2 years		3 years		5 years	
	(no.)	(%)	(no.)	(%)	(no.)	(%)
Local irradiation *						
Stages I and II	18/22	(82)	16/22	(73)	16/22	(73)
Mantle irradiations †						
Stages I and II	46/62	(74)	40/59	(68)	27/48	(56)
Extended field irradiation **						
Stages I and II	9/9	(100)	8/8	(100)	2/2	(100)
Chemotherapy						
Stage IV	14/32	(44)	7/32	(22)	4/32	(13)

* Local irradiation = treatment of involved areas only.

† Mantle irradiation = treatment of anterior and posterior cervical areas, both supraclavicular areas, both axillae, and mediastinum.

** Extended field irradiation = treatment of the para-aortic area in addition to the mantle; does not include irradiation of the spleen.

and one Stage IIIB patient, were treated with radiation therapy. All patients received total nodal irradiation (viz., mantle, para-aortic area, iliac area), with the exception of Stage I and II patients presenting histology of nodular sclerosis, who received only mantle and para-aortic irradiation. Radiation was administered with a Van de Graaff 2.0 mev (million electron volt) generator. The daily dosage was generally 200 rads (unit of measurement of the absorbed dose of ionizing radiation) per day and approximately 1000 rads per week.

Results

Group 1. (Patients whose disease was not staged by laparotomy and splenectomy). The five-year survival of 125 patients not staged by laparotomy and splenectomy is given in Table 1. Thirteen with disease are living. The 73% five-year survival in the group treated with local irradiation is noteworthy. However, the significance of this observation requires histologic correlation and knowledge of other factors. At the present time only ten of the 22 patients are living; five are free from disease and five with disease are living. The five-year survival of the mantle-irradiated group was 56%. All of the patients treated with extended field irradiation are alive, but two still have active disease. The number in this group is too

small, and the follow-up time is too short to evaluate the efficacy of the treatment. Those patients treated by chemotherapy were managed with a variety of regimens, frequently single agents, which could not be easily categorized. None of these patients survived beyond seven years.

Of the entire group of 125 patients, 55 are living and 70 are dead at the present time.

TABLE 2.—13 LIVING STAGE I and II PATIENTS WITH DISEASE, NOT STAGED BY LAPAROTOMY AND SPLENECTOMY (GROUP 1)

SURVIVAL	Treated with			
	Mantle Irradiation		Local Irradiation	
	number	%	number	%
> 3 years	7/8	88	—	—
> 5 years	4/8	50	5/5	100

TABLE 3.—TIME SPAN FOR RECURRENCE OF DISEASE IN 42 PATIENTS NOT STAGED BY LAPAROTOMY AND SPLENECTOMY (GROUP 1)

Recurring Within	Living Patients Treated with				Deceased Patients Treated with			
	Mantle Irradiation		Locally		Mantle Irradiation		Locally	
	(no.)	(%)	(no.)	(%)	(no.)	(%)	(no.)	(%)
4 months — 1 year	3	38	—	—	4	20	3	33
1 — 2 years	1	13	—	—	6	30	3	33
2 — 3 years	2	25	—	—	3	15	—	—
3 — 10 years	2	25	5	100	7	35	3	33
Total:	8		5		20		9	

Two patients (Group 1) were staged as IIIA. One was treated with mantle and extended-field irradiation; the other received total nodal irradiation. The latter patient was living and free from disease, two years after diagnosis. The former patient died with Stage IV disease, 2½ years after diagnosis. (These patients are not included in Table 1.)

Table 2 presents survival data on 13 patients of Group 1 who are living with disease. Table 3 shows the time interval between diagnosis and relapse for 42 patients in Group 1. Approximately one-half of the entire group had relapsed within two years; the remainder suffered relapse at varying times thereafter.

Group 2. (Patients whose disease was staged clinically by laparotomy and splenectomy). Table 4 compares 51 of the 53 patients in Group 2 by stage and histology. We were unable to review the histology presented by two of the patients. The disease presented by most of these patients was classified as Stage III. Fifteen of 23 Stage III patients were found to have histologically mixed cellularity. Nevertheless, the most frequent histologic diagnosis within the group was nodular sclerosis.

Table 5 summarizes follow-up information for the 53 patients. All patients whose disease was diagnosed as Stage IA, IIA or IIB are living and free from disease, except for one patient whose disease recurred in lung parenchyma after originating in the thymus. Special attention is directed to the Stage III patients. Disease

recurred in five out of 11 Stage IIIA patients; two patients are dead from disease. In addition, six out of 12 Stage IIIB patients suffered relapse; two are dead from disease.

TABLE 4.—RELATIONSHIP OF STAGE OF HODGKIN'S DISEASE TO HISTOLOGIC TYPE IN 51 PATIENTS WHO UNDERWENT LAPAROTOMY AND SPLENECTOMY (GROUP 2)

Histologic Type	Stage				
	I	II	III	IV	Total
LP	3	1	1	—	5
NS	4	14	7	2	27
MC	1	1	15	1	18
LD	—	—	—	1	1
Total:	8	16	23	4	51

LP = Lymphocyte predominant

NS = Nodular sclerosis

MC = Mixed cellularity

LD = Lymphocyte depletion

Table 6 details the nature of the relapse in the 11 of 53 patients. Particularly pertinent are the following observations:

1. Nine of the 12 patients presented mixed cellularity histology;
2. Eleven of the 12 had extranodal relapse (i.e. outside of the radiation port) and in six of these the major site of involvement was the liver;
3. The mean time for relapse to occur was 11.3 months, with a range of 2-19 months.

Discussion

One of the most striking findings in this study was that mantle therapy was not adequate treatment for 44% of Stage I and II patients in Group 1 who died after Stage IV disease developed.

There are three probable explanations for the relapse of these patients. First, their disease might have been advanced beyond Stage I and II at the time that therapy was initiated. It is noteworthy that the Stage III classification was applied only two times in patients who were not staged by laparotomy and splenectomy; these patients were not included in Table 1 because of the small number. However, in our Group 2 patients who underwent laparotomy, there were 23 Stage III

patients. It has been shown that laparotomy with splenectomy can change the clinical staging in as many as one-third of the cases.^{6,7} At the time of reporting, an additional seven patients have been staged by laparotomy and splenectomy, thereby increasing the total number of Group 2 patients from 53 to 60. Of the 60 patients, the clinical staging has been changed in 37% as a result of the findings at surgery. A more advanced stage of the disease was recognized in 17%. It is possible that a proportion of our clinically determined Stage I and II patients actually had Stage III disease.

A second possible reason for relapse in the mantle-treated Stage I and II patients is that the disease might have reappeared in untreated lymph nodes. Although the concept of true prophylactic irradiation is still debatable, Dr. Ralph Johnson presented preliminary data at the April 1972 Hodgkin's Symposium in Ann Arbor, showing a survival advantage for those patients who received extensive irradiation to clinically uninvolved regions below the diaphragm.⁸ He documented the recurrence of disease below the diaphragm in one-third of his patients who did not receive this treatment. (Disease in these patients had not been staged by laparotomy and splenectomy.)

A third possibility is that certain patients classified

TABLE 5.—FOLLOW-UP DATA ON 53 PATIENTS WITH
HODGKIN'S DISEASE STAGED BY LAPAROTOMY
AND SPLENECTOMY (GROUP 2)

Stage	Total (no.)	In Remission (no.)	Recurrence (no.)	Dead (no.)
IA	9	8	1	1*
IIA	11	11	0	0
IIB	5	5	0	0
IIIA	11	6	5	2
IIIB	12	6	6†	2
IV	5	2	2	2 ‡

* Hodgkin's disease in thymus; had recurrence in lung, but cause of death was myocardial infarction.

† One treated with chemotherapy postoperatively because of extensive disease.

‡ One died of an accident; one was lost to follow-up.

TABLE 6.—FOLLOW-UP DATA ON 12 PATIENTS WHOSE DISEASE RECURRENT

Patient	Age (years)	Sex	Stage	Histology	Type of Major Recurrence	Site of Recurrence	Time from Diagnosis to Recurrence* (months)	Time of Survival (months)
1	43	M	IA	N.S. [†]	E.N.+	Lung	12	18**
2	21	F	IIIA	M.C. ^{††}	E.N.	Liver	15	Living
3	12	M	IIIA	M.C.	E.N.	Lung, Bone	12	Living
4	19	F	IIIA	M.C.	E.N.	Liver	14	17
5	65	M	IIIA	N.S.	E.N.	Liver	6	6
6	24	F	IIIA	N.S.	E.N.	Liver	16	Living
7	22	M	IIIA	M.C.	E.N.	Lung	3	Living
8	58	M	IIIB	M.C.	E.N.	Liver	8	10
9	36	F	IIIB	M.C.	N.++	Retroperitoneal, Inguinal nodes	19	Living
10	43	M	IIIB	M.C.	E.N.	Paraspinal	2	Living
11	44	M	IIIB	M.C.	E.N.	Liver	14	20
12	34	M	IIIB	M.C.	E.N.	Bone	14	Living

* Mean = 11.3 months; range = 2-19 months.

† N.S. = nodular sclerosis.

+ E.N. = extranodal.

** = died of myocardial infarction.

†† = mixed cellularity.

++ = nodal.

as Stage I or II might have had occult foci of extranodal disease at the time of diagnosis. It is clear from our data that Stage III patients are at increased risk of having extranodal disease, unsuspected at the time of diagnosis. The short period of time to relapse observed in half of this laparotomized group strongly suggests that this is true. Although Stage IIIB patients are thought to be at higher risk for having extranodal disease, it is interesting to note that a similar recurrence rate was observed in our Stage IIIA patients.

Treatment.

Some physicians are treating cases at high risk of

recurrence, such as IIIB patients with chemotherapy alone,⁹ or with chemotherapy sequential to radical radiation therapy.^{10,11} Encouraging results were recently reported following the latter therapeutic approach. A total of 102 patients, Stage IB through IIIB, were grouped at random to receive either total nodal radiation alone, or radiation therapy followed by six cycles of MOPP¹² (nitrogen mustard, vincristine [Oncovin], procarbazine and prednisone). The number of relapses in the group that received the combination therapy (1/48) was significantly less than in the group which received radiotherapy alone (10/45).

At this time it appears that high dosage radical

radiation therapy is still the most reasonable treatment for Stage IA and IIA disease. If the patient does not undergo laparotomy and splenectomy, this treatment must include radiation to the spleen, since up to 25% of clinically normal spleens may contain evidence of Hodgkin's disease on histologic examination.^{6,7}

Johnson¹² found no difference in survival rates between Stage I and IIA patients presenting histology of nodular sclerosis and treated with para-aortic irradiation, compared with those who received total nodal irradiation, which includes the iliac and inguinal areas. Thus, patients with histology of nodular sclerosis can probably be managed with extended-field treatment only, to spare the bone marrow. Patients presenting other histologic types of Stage IA and IIA disease should probably receive total nodal irradiation.

Modified Approach to Management.

We have formulated the following modified approach to the management of patients with Hodgkin's disease, for use in our hospital:

1. All patients with Stage IA or IIA nodular sclerosis Hodgkin's disease receive radiation therapy to the mantle and para-aortic areas, if the disease is detected above the diaphragm.
2. All patients with Stage IA or IIA mixed cellularity, lymphocyte-depleted and lymphocyte-predominant Hodgkin's disease receive the above treatment and, in addition, receive radiation therapy to the iliac and inguinal areas ("total nodal irradiation").
3. All patients with Stage IA or IIA Hodgkin's disease having involvement below the diaphragm undergo total nodal irradiation, since these cases are at high risk of having occult disease above the diaphragm.
4. All patients with Stage IIIA, IIIB, or Hodgkin's disease of the thymus* undergo total nodal irradiation followed by sequential chemotherapy in 12 courses, as outlined below.
5. Sequential chemotherapy consists of the following:

The basic course consists of MOPP¹² given in a 28-day cycle as follows: Nitrogen mustard, 6 mg/m² given intravenously on days 1 and 8; vincristine, 2 mg given intravenously on days 1 and 8; procarbazine, 100 mg/m² given orally daily on days 1 to 10; and

* The decision to include patients with thymic Hodgkin's disease in the group which receives radiation therapy and sequential chemotherapy is based on our observation that 3/5 of our patients with this entity relapsed with lung parenchymal involvement. Two of the three cases died of Hodgkin's disease; one of the three patients died of a myocardial infarction.

prednisone, 40 mg/m² on days 1 to 10.

For the first course, nitrogen mustard and procarbazine are administered in one-half dosage, while toxicity is observed, since the patient will have recently undergone radiation therapy. Thereafter, the patient receives full dosage if it can be tolerated.

The basic goal is to administer a course of drugs every 28 days for the first six courses. The next three courses are given every 56 days. The last three courses are given every 84 days.

6. All patients whose disease is classified as Stage IV receive 12 courses of MOPP as outlined above.

It must be emphasized that this approach constitutes a clinical trial and cannot be generally recommended for the present. Only with time and careful analysis of clinical investigation conducted with large numbers of patients at major medical centers will the best treatment for patients with Hodgkin's disease be developed.

Summary

The results of treatment of 180 Hodgkin's disease patients at the Bethesda Naval Hospital have been reviewed. Of 127 patients whose disease was not clinically staged by laparotomy, 56 are now living and 71 are deceased. Of 53 patients whose disease was staged clinically by laparotomy, thus far, 45 are known to be living and seven are deceased.

Mantle therapy was apparently not satisfactory treatment for all patients who were clinically diagnosed as having Stage I or II disease; it is probable that some of these patients actually had Stage III or IV disease at the onset of treatment.

In the group of patients clinically staged by laparotomy and splenectomy, six out of 11 Stage IIIA patients are in remission, and five have had recurrences; two of the latter patients are dead. In 12 patients classified as Stage IIIB the disease is in remission; six had recurrences and two of the latter patients are dead. The disease of one patient in Stage IA (Hodgkin's disease in the thymus) recurred in lung parenchyma.

Radiation therapy alone may not be adequate treatment for certain patients, such as those in Stage IIIA or IIIB, particularly those with mixed cellularity histology. Some may actually have Stage IV disease. Treatment of these patients with chemotherapy, or with radiation and chemotherapy, is probably necessary.

On the basis of this study and a review of current literature, a new protocol has been formulated for the management of patients with Hodgkin's disease at the Bethesda Naval Hospital.

Acknowledgment

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WELCOME BACK TREATMENT.—Former POW LCDR Edward A. Davis (left) accepts a U.S. Naval Academy plaque from Midshipman Daniel G. Musmano during an informal ceremony conducted at Naval Hosp Bethesda, NNMC. Two other Naval Academy graduates received "Welcome Back" mementoes conferred by the Brigade of Midshipmen, former POWs CDR James F. Bell (2nd from left) and CAPT Wendel B. Rivers (3rd from left).

Panoramic Radiography in the

Diagnosis of Antral Pathology:

Report of a Case

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and

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INTRODUCTION

The detection and diagnosis of neoplasm in and around the oral cavity must be considered an important phase of dental practice. In recent years we are fortunate in having at our disposal the panoramic radiograph.¹ The Panorex has proven itself to be an extremely valuable tool in the detection of radiographic abnormalities.² It has also shown itself to be an invaluable aid in diagnosing the suspicious, or the obvious in maxillary sinus pathology.^{3,4}

REPORT OF A CASE

A 23-year-old male PFC, USMC, had first been seen in July 1969 with a chief complaint of diplopia and right-sided head pain. A diagnosis of right sixth cranial nerve palsy was made at that time. He was thoroughly evaluated by a neurologist who diagnosed a mass situated on the clivus. The patient was referred to the ENT Service where a transpalatal nasopharyngeal biopsy was performed. The histopathologic diagnosis was lymphoepithelioma. The patient was treated by the Radiology Service which delivered 7,000 rads of 60 Cobalt radiation to the primary lesion and 5,000 rads to the neck. Following radiation therapy, there was a return of function to the right lateral rectus muscle. The patient was subsequently asymptomatic with no evidence of recurrent or residual tumor in the nasopharynx or neck.

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The opinions or assertions contained herein are those of the authors and are not to be construed as official or as necessarily reflecting the views of the Navy Department or the naval service at large.

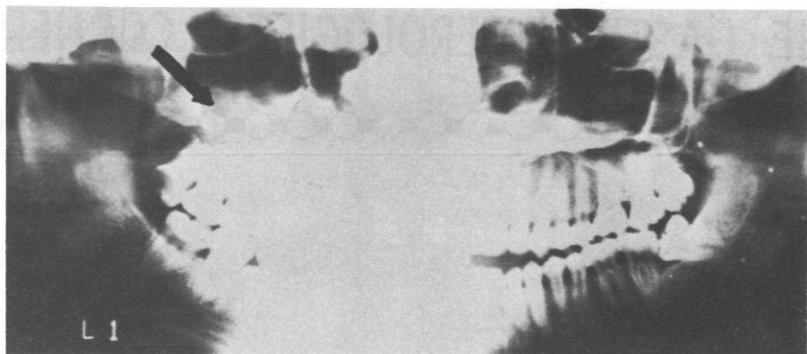


Figure 1.—Panorex radiograph demonstrating mass in the left maxillary antrum.
(Photo by HM2 James Spencer, USN, Medical Photographer).

In December 1972, the patient presented to the Dental Service, Long Beach Naval Hospital with a chief complaint of pain in the maxillary third molar tooth. Examination revealed severe mandibular trismus with a 1 cm mandibular opening and a 2 x 1 cm fenestration of the soft palate on the left side. Panorex radiograph revealed dental caries in all remaining third molar teeth and a mass in the left maxillary antrum. (See Figure 1) The symptomatic carious maxillary left third molar tooth was extracted with difficulty because of the mandibular trismus. Adherent soft tissue on the root portion of the tooth was submitted for histologic examination which disclosed evidence of a poorly differentiated lymphoepithelioma.

DISCUSSION

The case reported clearly illustrates the value of the Panorex as an aid in establishing a diagnosis. The patient's severe mandibular trismus prevented taking an intra-oral periapical radiograph. On the basis of the Panorex radiographic findings and the patient's past history, it was reasonable to suspect neoplastic disease of the antrum as opposed to dental pathology resulting from severe cariosity of the maxillary molar tooth. Histologic examination of soft tissue adherent to the

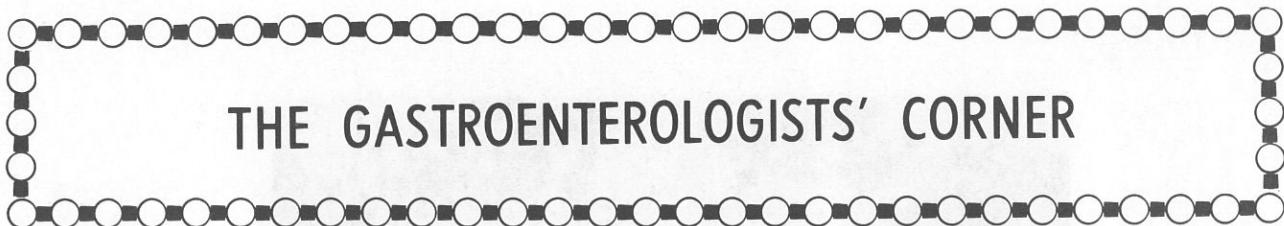
root of the extracted tooth served to confirm the diagnosis that had been initially suspected on the basis of Panorex radiographic findings.

SUMMARY

It is imperative that the maxillary antrum be evaluated for pathology when Panorex radiographic examination is performed. Attached soft tissue removed in the process of tooth extraction must be submitted to the pathologist for histopathologic examination. Third molar teeth located in the line of radiation should be removed prior to institution of cobalt therapy.

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THE GASTROENTEROLOGISTS' CORNER

GILBERT'S SYNDROME

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INTRODUCTION

Hyperbilirubinemia and the concomitant yellow pigmentation of skin, mucous membranes and sclerae have fascinated and stimulated physicians since the embryonal days of the art of medicine. Jaundice, perhaps, has no equal in the ability to stimulate concerted and, at times, frenzied attempts to delineate its cause. Fortunately time is on the side of the investigating physician since hyperbilirubinemia, per se, is an innocuous state, except when manifest in the newborn infant where it has a dreaded damaging effect on neuronal tissue.

Hereditary forms of hyperbilirubinemia have been recognized since the first decade of this century when Gilbert and his associates described syndromes associated with the familial occurrence of hyperbilirubinemia. A classification of these disorders has evolved over the last 20 years and recent work within the last 10 years has contributed enormously to our understanding of the metabolism of bilirubin and the pathogenesis of these disorders.

TRANSFER OF BILIRUBIN FROM BLOOD TO BILE

Bilirubin is an organic anion, a primary catabolic product of heme degradation. Unconjugated bilirubin (UCB) is found in the plasma in its "carrier state," tightly bound to albumin. A small amount of free or unbound UCB is found in plasma. Free UCB passes readily across the plasma membrane of the hepatocyte and is associated with free flux from cell to plasma. Transfer of UCB into the hepatocyte is also an active process requiring proposed, but as yet undefined, carrier mechanisms.

Recent work by Arias and his associates has shown that UCB, on arrival within the cytoplasm of the hepatocyte, is bound by two cytoplasmic proteins labeled Y and Z. Y protein is considered the preferential binding site of UCB; when saturation of Y protein occurs, binding with Z protein subsequently takes place. Other anions entering the cell are also preferentially bound by Y protein and include: sulfobromphthalein (BSP), indocyanine green, porphyrins, cholecystographic agents and cortisol.⁶

UCB-Y protein complex is subsequently directed to the rough endoplasmic reticulum where conjugation occurs. Conjugation occurs in the presence of the enzyme glucuronyl transferase, involving the reaction of UCB with uridine diphosphoglucuronic acid (UDPGA).

The opinions expressed in the above article are those of the author and cannot be construed as reflecting the views of the Navy Department or the naval service at large.

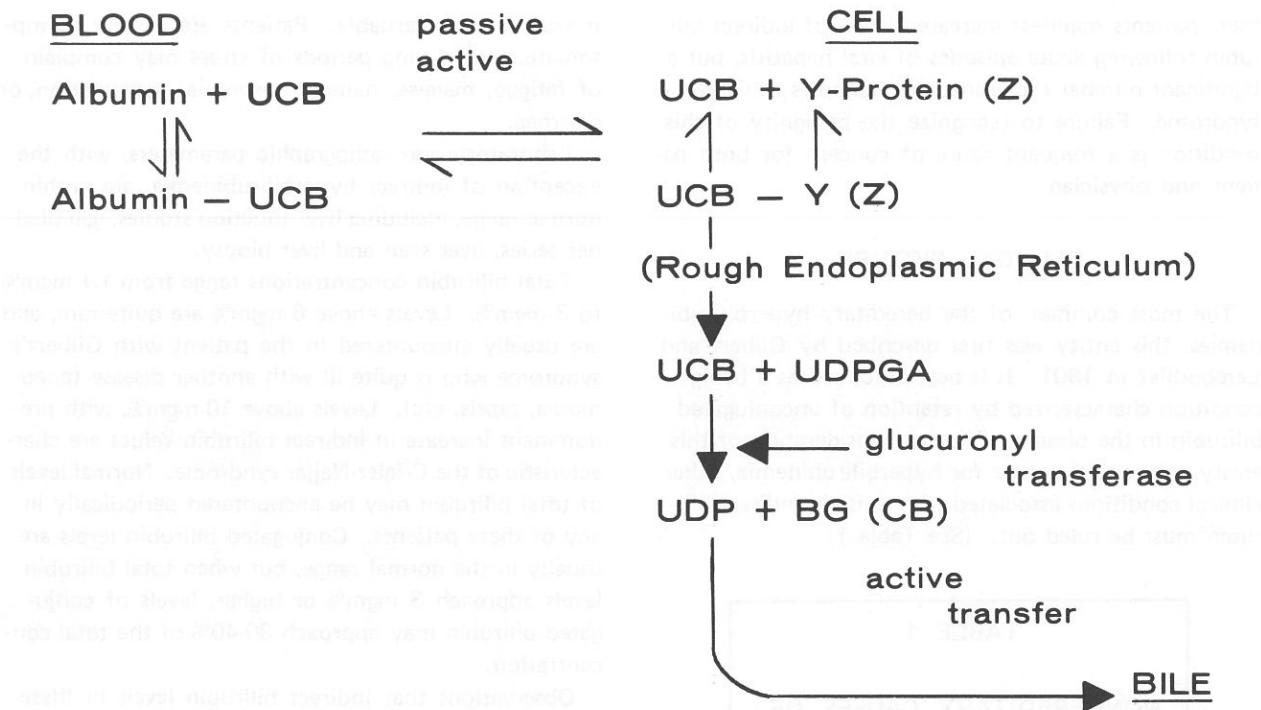


Figure 1.—Schematic representation of bilirubin uptake, conjugation and excretion.

Conjugated bilirubin (bilirubin glucuronide) is then transferred through a presumed energy-dependent system into the bile canaluli and is excreted into the bile. (See Figure 1)

HYPERBILIRUBINEMIA CLASSIFICATION

Hereditary hyperbilirubinemias can be grouped into two general categories: those associated with indirect

or unconjugated hyperbilirubinemia, and those associated with direct or conjugated hyperbilirubinemias. These in turn may be classified as secondary to defects of uptake, conjugation, or excretion. We would caution the reader that more than one mechanism may be involved in the generation of the hyperbilirubinemia. (Figure 2)

Indirect hyperbilirubinemia is a common problem seen in the practice of military medicine. Most of

<u>CONDITION</u>	<u>BILIRUBIN PATTERN</u>	<u>MECHANISM</u>
Gilbert's	TB: ↑ IB: ↑ DB: ↓	Defect in uptake, enzyme deficiency?
Crigler-Najjar Types I & II	TB: ↑ IB: ↑ DB: ↓	Glucuronyl-trans. deficiency.
Dubin-Johnson	TB: ↑ IB: 0 DB: ↑	Defect in excretion, pigment positive.
Rotor Syndrome	TB: ↑ IB: 0 DB: ↑	Defect in excretion, pigment negative.

Figure 2.—Classification of hereditary hyperbilirubinemias.

TB = total bilirubin.

IB = indirect bilirubin.

DB = direct bilirubin.

these patients manifest increased levels of indirect bilirubin following acute episodes of viral hepatitis, but a significant number represent true examples of Gilbert's syndrome. Failure to recognize the benignity of this condition is a frequent cause of concern for both patient and physician.

CLINICAL PICTURE

The most common of the hereditary hyperbilirubinemias, this entity was first described by Gilbert and Lereboullet in 1901. It is best described as a benign condition characterized by retention of unconjugated bilirubin in the plasma. Prior to consideration of this entity as a specific cause for hyperbilirubinemia, other clinical conditions associated with a rise in indirect bilirubin must be ruled out. (See Table 1)

TABLE 1
NONHEREDITARY CAUSES OF
INDIRECT HYPERBILIRUBINEMIA

Hemolytic Disease
Cardiac Disease
Primary Liver Disease
Biliary Tract Disease
Secondary Hepatic Disease
Infection and Sepsis
Post-Hepatitis
Post-Surgical
Thyrotoxic
Polycythemic
Drug Induced
Physiologic of Newborn
Breast Milk-Steroid Syndrome
High Altitude States

Gilbert's syndrome is most common in the young male adult. Most large series are drawn from military and college populations. The condition is inherited as an autosomal dominant, and patients with this disorder are heterozygous for the determining gene. Elevations of indirect bilirubin have been detected in 16.1% of healthy parents and 27.5% of siblings of patients with this entity.¹

Clinically these patients present primarily with mild, fluctuating icterus. Jaundice may be first noted at birth, or detected later in early adult life; it may persist to old age. Physical examination, with the exception of

icterus, is unremarkable. Patients are usually asymptomatic, but during periods of stress may complain of fatigue, malaise, nausea, dyspepsia, constipation, or diarrhea.

Laboratory and radiographic parameters, with the exception of indirect hyperbilirubinemia, are within normal range, including liver function studies, gall bladder series, liver scan and liver biopsy.

Total bilirubin concentrations range from 1.1 mgm% to 3 mgm%. Levels above 6 mgm% are quite rare, and are usually encountered in the patient with Gilbert's syndrome who is quite ill with another disease (pneumonia, sepsis, etc.). Levels above 10 mgm%, with predominant increase in indirect bilirubin values are characteristic of the Crigler-Najjar syndrome. Normal levels of total bilirubin may be encountered periodically in any of these patients. Conjugated bilirubin levels are usually in the normal range, but when total bilirubin levels approach 3 mgm% or higher, levels of conjugated bilirubin may approach 30-40% of the total concentration.

Observations that indirect bilirubin levels in these patients tend to rise during periods of stress (fatigue, infection, emotional tension, starvation, and menstruation) have led to the formulation of a diagnostic test which is thought to be specific for this syndrome.⁵ Abrupt reduction of a standard 2,000-3,000 calorie diet to a diet that totals approximately 400 calories, over a 36- to 72-hour period, will result in a concomitant abrupt rise in indirect bilirubin within 24 hours of fast initiation. This is a simple maneuver that should always be undertaken before establishing the diagnosis of Gilbert's disease.

Phenobarbital medication has no effect on the indirect hyperbilirubinemia in these patients.⁴ This is in contrast to other conditions such as physiologic jaundice of the newborn, where phenobarbital can induce glucuronyl transferase production and hence temporarily ameliorate the indirect hyperbilirubinemia. Patients recovering from viral hepatitis may exhibit low grade levels of hyperbilirubinemia for prolonged periods of time following the acute disease. Awareness of this fact will avoid confusion with Gilbert's syndrome. Fast has no effect on indirect bilirubin in the posthepatitis patient.

An inherited inability of the hepatocyte to take up indirect bilirubin from the plasma has been the classic explanation for the pathogenesis of this syndrome. Black and his associates have reported a decrease in glucuronyl transferase activity in all Gilbert's syndrome patients whom they have studied.⁴ Confirmation of this investigation awaits the standardization of their glucuronyl transferase assay.

Sulfobromophthalein (BSP) uptake and clearance has always been described as normal in Gilbert's syndrome. However, recent data indicate that these patients may indeed show either delayed uptake of BSP, or delayed excretion of this dye.⁷ Radiobilirubin kinetics in patients with Gilbert's syndrome reveal abnormal patterns of plasma radiobilirubin disappearance, again indicative of a major defect in the uptake of bilirubin in these patients.⁸

Finally, we would caution that the presence of hemolysis in some patients does not exclude the diagnosis of Gilbert's disease. Radiobilirubin uptake studies in patients with hemolysis have shown that some present an abnormal pattern of plasma radiobilirubin disappearance indistinguishable from that seen in patients with Gilbert's syndrome.⁸ Thus, the presence of hemolysis is no longer incompatible with the diagnosis of Gilbert's syndrome when appropriate diagnostic techniques are available.

We prefer to think of Gilbert's syndrome as a benign condition, rather than as a disease state. Patients with this condition are perfectly healthy, should not be restricted in any fashion, and are physically fit for full military duty. Once the diagnosis of Gilbert's syndrome is made, the patient should be made aware of the

benignity of the disorder; and further concern regarding himself and his future heirs is unwarranted.

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NAVY SCHOOLS

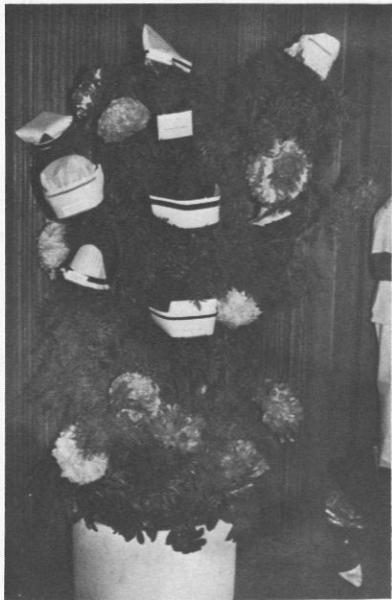
Navy schools offer a wide range of topics and cover both basic instruction and highly advanced training. There are several hundred of these schools scattered throughout the U.S. These schools are divided into three classes: class "A" schools provide the basic knowledge and skills to train personnel for the lower petty officer grades; class "B" schools train personnel in the higher petty officer grades; class "C" schools are designed to train enlisted personnel in the techniques of a particular skill. Additional schools provide refresher courses and team training for people assigned to fleet units. 

ERRATA

In U.S. NAV MED, Volume 61, March 1973, the following errors are cited:

Page 1, Credits, line 4: VADM George M. Davis, MC, USN, the 25th Surgeon General of the Navy retired on 31 Jan 1973 (vice 1972).

Page 51, "Navy Workshop in Occupational Health, Industrial Hygiene and Safety." The last line should have read as follows: "Presenting the keynote speeches were CDR C.J. Limerick, Jr., Military Assistant to Deputy Undersecretary of the Navy Joseph Grimes; RADM Alene B. Duerk, Director of the Navy Nurse Corps"; etc. 



64th
BIRTHDAY CELEBRATION
of the NAVY NURSE CORPS,
MAY 1972



CAPT Charles C. Muehe, MC, USN (left), former CO, Nav Hosp Boston, cut the Nurse Corps Anniversary Cake with Chief of Nursing Service CAPT Maxine Conder, NC, USN (center) and ENS Mary L. Wojtowicz, NC, USNR (right).





At NNMC, Bethesda, Md., the Director of the Navy Nurse Corps, then RADM select Alene B. Duerk, NC, USN (left) assisted in the cutting of the cake. CAPT Alice R. Reilly, NC, USN (right), Chief of Nursing Service at Nav Hosp Bethesda, is now retiring from active naval service after a distinguished career.



Present Director of Navy Nurse Corps, now RADM Alene B. Duerk (center) shared the festivities with former Nurse Corps Directors, CAPT Ruth A. Erickson, NC, USN (Ret.) (left), and CAPT Veronica M. Bulshefski, NC, USN (Ret.) (right).





A most attractive and unique Receiving Line.





ON DR. JOSEPH HARRISON

To the Editor: It was with interest that I read Mr. Patton's discussion of my article, "Dr. Joseph Harrison: America's First Naval Surgeon," NAV MED 61:11-15 & 56, Mar 1973. For historical buffs, I wish to add two pertinent comments.

Mr. Patton noted that Duncan (LT COL LC Duncan, AUS [Ret.]: Medical Men in the American Revolution 1775-1783. The Army Medical Bulletin No. 25, Carlisle Barracks, Pa., 1931.) referred to Dr. Harrison as having originated from Virginia in one instance, and from Pennsylvania in another instance.

The Pennsylvania origin is probably based on the fact that Dr. Harrison lived in Philadelphia for a period of time while the first Continental Fleet was being outfitted. Little was known of his obscure Delaware home in Kent County.

The Virginia origin however may be related to another Dr. Joseph Harrison of Revolutionary War days, not to be confused with the Dr. Harrison who was the first naval surgeon. The other Dr. Harrison was born in Virginia (Virginians in the Revolution, 1775-1783. J.H. Gwathmey, ed. Richmond, Va., 1938.) in the 1740s and served in the Virginia State Navy brigantine, the *Liberty*, from July 1776 until capture by a British cruiser in 1777 off Buckroe (near Norfolk, Va.). He died in a British prison in New York in late 1778.¹⁻³

Surgeon Thomas Kerr is said to have sailed aboard the *Andrew Doria* in the first Continental Fleet. Review of the list of officers recorded in Esek Hopkins' own papers⁴ and from the Naval Records Collection, Rhode Island Historical Society⁵ does not reveal a Thomas Kerr, or any other medical representative in the fleet.

LCDR Robert R.M. Gifford, MC, USNR
Naval Hospital Charleston, SC 29408

References:

1. Naval Documents of the American Revolution, 5:1300.
2. Letters and affidavits from heirs of Joseph Harrison re service in the Navy and death in prison. Bounty Warrants, Joseph Harrison, 1838. Virginia State Library.
3. War Records Office, Archives and History Bureau, State of New Jersey.
4. Field, E: Esek Hopkins. (Providence), Preston & Rounds, p 106-109, 1898.
5. Smith, JJ: Civil and Military List of Rhode Island. (Providence), 2:703, 1901.

The brig ANDREW DORIA was commanded by CAPT Nicholas Biddle whose papers were acquired by the Navy History Division. In the book "Naval Documents of the American Revolution," 4:713, is listed the name "Thomas Kerr, Doctr," aboard ANDREW DORIA from February 1776. The Biddle papers are the source of this listing.

I have been unable to locate another source which I had in mind, naming Dr. Kerr as being in ANDREW DORIA.

W. Kenneth Patton
BUMED, Washington DC 20372.

DEPUTY CHIEF for FLEET MEDICINE

To the Editor: LCDR Dewey's excellent article "Shipboard Medical Readiness," NAV MED 61:16, Mar 1973, clearly perceived, carries a double impact.

Its immediate effect is to point up the many defects and weaknesses afflicting medical readiness in ships of the fleet, surface units in particular. LCDR Dewey adeptly fingers those deficiencies which are serious and yet readily correctible. The recommendations that he

makes are sound, and in proper perspective in relation to the primary mission of a warship. Their implementation would surely eliminate many causes for serious concern over readiness.

Far more important, however, is the message between the lines; Fleet Medicine, the real *raison d'être* of the Navy Medical Department as it is now represented within the headquarters complex in Washington, is a back-seat rider, a hanger-on, an afterthought. Shipboard and field medicine are mere subsections scattered through various codes in BUMED. This is no way to denigrate the dedication and expertise of those who now man those codes. On the contrary, it is a tribute to their talents that they are able to accomplish so much under the circumstances.

The underlying need is for revitalized recognition of

the basic role of the Naval establishment and its medical department—the support and nurture of SHIPS.

If the Medical Department's role in the vital effort is to be fully realized, I believe the present elements responsible for shipboard and field medicine should be separated from their parent codes and reassembled under the leadership of a flag officer, the Deputy Chief for Fleet Medicine.

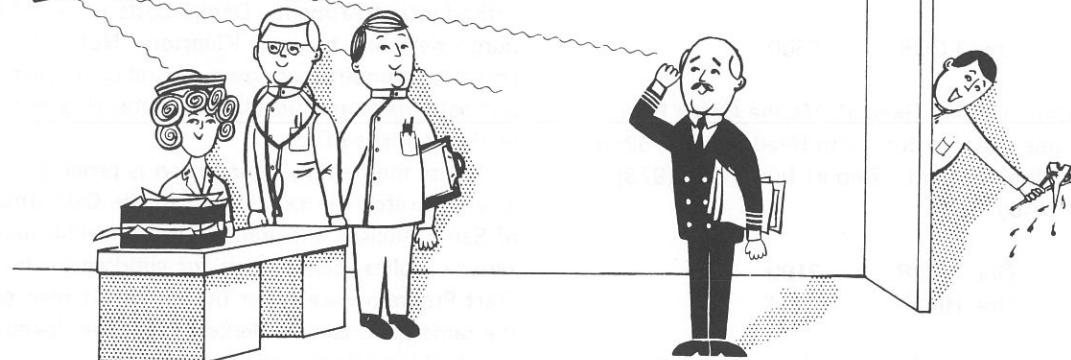
Until that happens, it looks as though our ships, medically at least, will remain "orphans of the storm."

CAPT Norman Ronis, MC, USN
Staff, Commander
Cruiser-Destroyer Force
U.S. Atlantic Fleet
Newport, R.I. 02840 



A SENTER FAMILY TRADITION.—The 30-year-old Naval Flight Surgeon wings of CAPT Vance E. Senter of Omaha, Neb., will go on flying over the heart of his 26-year-old son, LT Thomas P. Senter (center). The wings that were pinned on LT Senter's uniform by his wife, Sherrell, in graduation ceremonies conducted at the Naval Aerospace Medical Institute, Pensacola, Fla., on 23 Mar, were previously pinned on Dr. Vance Senter by his wife, Alice, at a similar ceremony in Pensacola on 26 Mar 1943. CAPT Vance Senter (right) will retire 1 July, but now that LT Tom Senter has qualified in aerospace medicine he will be able to carry on the work of his father in maintaining the health of Navy and Marine flight crews.—PAO, Nav Aerospace Med Center, Pensacola, Fla. 

Notes and Announcements



PARTICIPATION IN US NAV MED

All members of the Navy Medical Department, Reservists and Regulars alike, are reminded of this magazine's policy. Naval Reservists as well as Regular Navy members are invited to submit timely, up-to-date items of official and professional interest relative to medicine, dentistry and allied sciences for publication. Greater input from the Reserve medical community is welcome and long overdue. Many who practice in academic civilian communities are in a splendid position to contribute quality papers which are particularly desired.

Professional meetings sponsored by our naval hospitals should offer a splendid source of original papers. Print-outs of talks together with glossy black and white photos of appropriate slides and illustrations may be submitted directly to NAV MED as noted on the inside back cover of every issue. Preferred format should be noted by checking a recent issue of the publication.

It has long been the policy of US NAV MED to depend entirely upon voluntary contributions. We believe, in the long run, that assigned topics and papers lack the clout and interest which our members are capable of providing on their own, without administrative prodding or wheedling. Don't wait for us to come to you. Take matters into your own hands.—Code 18, BUMED. ☺

AGE LIMITATIONS FOR NAVAL RESERVE OFFICERS

Article 1880160 of the Bureau of Naval Personnel Manual originally set age-in-grade limitations for Ready Reserve officers. These age limits have been rescinded,

in a move to provide a more readily mobilizable Naval Reserve force. The new criteria for transfer to or re-tention in the Ready-Reserve are as follows:

a. Naval Reserve officers may not exceed the age-in-grade noted below, if they wish to either remain in, or transfer to the Ready-Reserve:

GRADE	AGE
ENS/LTJG	40
LT	46
LCDR	52
CDR/CAPT	58
WO/CWO	58

When officers reach the maximum age-in-grade, their records will be screened and they will be automatically transferred to an appropriate Standby Reserve category, or, if eligible and if requested, to the Retired Reserve. These transfers will be effective on the next 1 October.

When the Chief of Naval Personnel accepts a Ready-Reserve Agreement it will be extended to the maximum authorized age-in-grade, and will be adjusted with any promotion.—Code 36, BUMED. ☺

ACDUTRA FOR NAVAL RESERVISTS OFFICER - ENLISTED

The Marine Corps Reserve is in need of the services of a number of Naval Reserve Medical Department members during July and August of this year. Anyone interested should make application for ACDUTRA through their District Medical Program Officer as soon as possible. Specific requirements are as follows:

a. Commanding General, 8th Marine Amphibious

Brigade, Marine Corps Base, Twentynine Palms, Calif., for Alkalai Canyon 73. Report by 4 Aug 1973; terminate 18 Aug 1973.

One LCDR 2300

b. Commanding General, Marine Corps Base, Camp Lejeune, NC, for duty with Headquarters, 52nd Marine Amphibious Unit. Report by 21 Jul 1973; terminate 5 Aug 1973.

One LCDR 2100
One HM1 8404

c. Commanding General, Marine Corps Base, Camp Lejeune for duty with Troop Exercise Coordinator Staff, MAULEX 1-73. Report by 21 July 1973; terminate 5 Aug 1973.

One HMC 8424
One HM1 8404
One HM2 8404. ☺

FLUORIDATION SAVES TEETH, DOLLARS AND DENTAL MANPOWER

Twenty-eight years of experience have conclusively demonstrated that proper fluoride levels in public water supplies will prevent up to two-thirds of tooth decay in children. In areas where the water contains a proper level of fluoride, the cost-per-patient of dental health care programs for children is dramatically reduced.

Americans spent over four billion dollars last year for dental treatment, and the cost is rising. Even those who do not have children or need any dental treatment themselves, are affected because of the tax money used to finance dental health programs.

An investment in fluoridation is an excellent way to help meet this problem. Fluoridation reduces the hazards of both tooth decay and tooth loss, and subsequently saves everyone money—the individual, the family, and the community. This is in addition to the better overall dental health, and freedom from dental pain and discomfort enjoyed by residents of these communities, adults as well as children.

A dental care study compared Newburgh, New York (a fluoridated community), with its nonfluoridated neighbor, Kingston. In Newburgh, only one child in 10 has lost any permanent teeth from tooth decay, whereas nine out of 10 children in Kingston have lost one tooth. An additional benefit gained from the lesser amount of tooth decay and subsequent tooth loss

found in Newburgh is the lowered incidence of malocclusion when compared to Kingston children. Three times as many Newburgh children do not require any orthodontic treatment. Dental costs per child in Newburgh were half those in Kingston. Not only was the cost of continuing care over a number of years reduced, but patients from fluoridated Newburgh spent less time in the dentist's office.

Across the nation, fluoridation is proving an effective way to stretch the tax dollar. In the California cities of San Francisco and Vallejo—both having fluoridated water supplies—dental costs for children in the Head Start Program were lower by two-thirds than costs for the same basic care in Berkeley and San Joaquin, where the drinking water is not fluoridated.

In Philadelphia, which has had fluoridated water since 1955, it is estimated that fluoridation effects a potential financial savings for dental care of two million dollars every year. In Toledo, Ohio a savings of \$29 per child per year, for dental care of children in the second and third grades has been attributed to fluoridation.

Fluoridation costs only pennies per person per year. If every community in the United States fluoridated its water supply, the annual saving in dental care costs would be about 700 million dollars—a return of approximately \$50 for every dollar invested in fluoridation.

In recognition of the value of commercial fluoridation as a public health measure and the potential savings in tax dollars, eight states have adopted state-wide fluoridation laws which require all municipalities to fluoridate their water supplies. In Georgia, the most recent state to pass such a law, the State will pay the cost for fluoridation equipment, both installation and a six-month supply of necessary materials and chemicals. Other states which have passed similar laws are Connecticut (1965), Minnesota (1967), Illinois (1967), Delaware (1968), South Dakota (1969) and Ohio (1969).—Code 611, BUMED. ☺

NAVAL RESERVE

MEDICAL DEPARTMENT PROMOTIONS

The heartiest of congratulations are extended to the Naval Reserve officers listed here, on their recent selection for promotion to CAPTAIN.

MEDICAL CORPS

DOLLINGER, Armand L.
HASLUP, Allen L.

MEDICAL CORPS (Cont'd)

HEGGIE, Alfred D., Jr.

JOJKO, John

KLEH, Thomas R.

LESOCK, William J.

MAURONER, Norman L.

MOORE, Charles F.

OLENICK, Samuel R.

PARKINSON, Leonard S.C.

SCOTT, Daniel J., Jr.

SMITH, Gardner W.

TIERNEY, Ralph C.

VAN ORDEN, Lucas S.

WINTRICH, Herman P.

MEDICAL SERVICE CORPS

BROWNSON, Robert H.

CAPPS, Daniel W.

NURSE CORPS

SHANKS, Mary D. 

RADM Selectee W.J. Mills, Jr., MC, USNR

CAPT William J. Mills, Jr., MC, USNR-R of Anchorage, Alaska was recently selected for promotion to flag status. Upon appointment he will become one of seven Medical Corps flag officers serving in the Ready-Reserve and the first Naval Reservist from our fiftieth state to be elevated to two-star rank.

Dr. Mills was born in San Francisco, Calif., on 7 July 1918. He received his BA Degree in May 1942 at the University of California, Berkeley and was commissioned an Ensign, USNR during November of that year. He distinguished himself as a member of Motor Torpedo Boat Squadron 11 and Captain of PT 181, sustaining the loss of his right leg, below the knee, in combat at Bougainville, Solomon Islands in January 1944. Returning to civilian life, he attended Stanford University Medical School from 1945 to 1949, earning his MD Degree in 1950. He served his internship and residency training in Orthopaedic Surgery at the University of Michigan Hospital. He is certified by the American Board of Orthopaedic Surgery. The doctor has consider-



RADM Select William J. Mills, Jr., MC, USNR-R of Anchorage, Alaska.

able interest in survival training and arctic medicine.

Significant duty since World War II has included service in Vietnam with the Third Marine Amphibious Force and as Chief of Orthopaedic Surgery at the Naval Hospital Danang 1966-1967.

In addition to the Legion of Merit, CAPT Mills holds the Bronze Star with Combat V, Purple Heart and the Navy and Marine Corps Medal. His many achievements in the civilian community have been recognized as evidenced by a variety of local and national awards. He is also a member of numerous local, national and international societies.

Dr. Mills is in private practice in Anchorage and his reserve assignment is with Training and Support Unit 13-171 at the Reserve Facility in that city. He also acts as consultant not only to Navy, Army and Air Force medical facilities in Alaska, but to the Alaska Department of Health, Alaska Native Service Hospital (USPHS), Veterans Administration, Alaska Crippled Children's Treatment Center and the Shrine Hospital, Portland, Oregon. 

ASSOCIATION OF MILITARY SURGEONS OF THE U.S.
AMSUS AWARDS

The table shown below outlines the entire awards program for 1973

AWARD TITLE	INITIATED BY	ACHIEVEMENT RECOGNIZED	PRIZE
The John Shaw Billings Award	Eaton Laboratories Div., Norwich Pharmacal Co.	AMSUS member under 41 for outstanding potential in Executive Medicine.	Plaque; \$500.
The Joel T. Boone Award	Ciba Pharmaceutical Co., Div. Ciba-Geigy Corp.	Outstanding service to the Association.	Silver plaque; \$500.
The Andrew Craigie Award	Lederle Laboratories Div. American Cyanamid Co.	Outstanding accomplishment in advancement of professional pharmacy within the Federal government.	Silver plaque; \$500.
The Federal Medical Residents Award	Purdue Frederick Company	Federal medical resident nominated by one of the Federal medical chiefs for outstanding performance as a resident.	Plaque; \$500.
The Federal Nursing Service Award	Roche Laboratories Div. Hoffmann-LaRoche, Inc.	Best essay submitted in competition, advancing professional nursing.	Plaque; \$500.
The Founder's Medal	Executive Council, AMSUS	Outstanding contribution to military medicine and meritorious service to the Association.	Bronze medal; Scroll; Life membership.
The Casimir Funk Award	USV Pharmaceutical Corp.	Outstanding accomplishment in the field of Cardiovascular disease by person eligible for AMSUS membership.	Scroll; \$500.
The Gorgas Medal	Wyeth Laboratories of Philadelphia	Distinguished work in preventive medicine.	Silver medal; Scroll; \$500.
The Philip Hench Award	Merck, Sharp & Dohme	Outstanding contributions in field of rheumatology and arthritis	Bronze plaque; \$1000.
The George R. Kennebeck Award	American Hospital Supply Corp.	Federal Dental Service Officer for excellence in executive dental practice performed in conduct of Federal Dental activities.	Plaque; \$500.
The Margetis Award	Star Dental Mfg. Co.	Outstanding contribution to dentistry by a practicing Federal dental services clinician eligible for AMSUS membership.	Plaque; \$500.
The McLester Award	Lederle Laboratories Div. American Cyanamid Co.	AMSUS member for outstanding work in nutrition and dietetics.	Bronze plaque; \$500.
The William C. Porter Lecture	Geigy Pharmaceuticals Div. Ciba-Geigy Corp.	William C. Porter Lecture, on psychiatry, at Annual Convention.	Scroll; \$500.
The Carl A. Schlack Award	Ritter Company Division Sybron Corporation	Outstanding contribution in dental education or research by a practicing Federal dentist of one of the five Federal Medical Services.	Bronze plaque; \$500.
The MAJ Louis Livingston Seaman Prize	AMSUS Trust Fund left by MAJ Seaman	Notable article published in MILITARY MEDICINE during the previous calendar year.	Scroll; \$250.
The Stitt Award	Merrell-National Lab. Div. Richardson-Merrell Inc.	AMSUS member for some notable work in medicine.	Bronze plaque; \$500; Life membership.
The Sustaining Membership Lecture Award	Sustaining Members, AMSUS	Sustaining Membership Lecture by AMSUS member, on medical research, at Annual Convention.	Scroll; \$500.
The Sir Henry Wellcome Medal & Prize	Estate of Sir Henry Wellcome	Winning competitive essay on any subject relating to military medicine.	Silver medal; Scroll; \$500.
The James Clarke White Award	Eli Lilly and Company	AMSUS member for outstanding work in clinical or research dermatology.	Bronze plaque; \$500.
The MAJ Gary Wratten Award	Garrett Corporation	Outstanding accomplishment in field military medicine by person eligible for AMSUS membership.	Bronze plaque; \$500.

Nominations for 1973 awards recipients are currently being considered by Commanders and Directors of Federal Medical Facilities. Nominations must be received by the Awards Committee, postmarked not later than 15 June 1973, except the Seaman Prize, which is awarded from previously published articles in MILITARY MEDICINE; the Founder's Medal, which is selected by the President, as ratified by the Executive Council; the Porter Lecturer, selected by the Awards Committee; and Sustaining Membership Lecturer, selected by the Chairman of Scientific Program and SM Section. (Reprinted from Military Medicine, Vol. 138, No. 1, January, 1973) 

OFFICIAL INSTRUCTIONS AND DIRECTIVES

BUMEDINST 6300.6 of 5 Mar 73

*Subj: Inpatient Drug Detoxification
and Treatment Reporting System*

The following instructions for reporting information on inpatient drug detoxification and treatment have been instituted since the need for accurate and timely data concerning the incidence and treatment of patients with drug problems is necessary in order to monitor and evaluate the effectiveness of the drug program in the armed forces.

1. Patients to be included in this report are those with one or more of the following diagnoses who occupy a bed in a BUMED managed facility: drug or poison intoxication, drug dependence, improper use of drugs.

2. Report items include: (1) number under treatment at the beginning of the month, (2) number entering treatment during the month from unauthorized absence, (3) number of all others entering treatment during the month, (4) number released from treatment during the month, (5) number unauthorized absences from patient status at end of month, (6) number of drug-related deaths while under treatment, (7) number remaining at end of month, (8) number of treatment days for released persons, (9) average number of treatment days per released person, (10) age of those entering treatment during the month.

3. Any unusual situations regarding the patients or medical personnel or facilities are to be recorded under "Remarks."

BUMEDNOTE 6810 of 20 Mar 73

Subj: Safety glasses

This notice informs commands of the significant difference between industrial quality eye protection, and the eyeglass and sunglass lenses complying with the Food & Drug Administration (FDA) Ruling of May 1971, requiring that the lenses be impact resistant.

Industrial safety lenses required for compulsory eye

protection areas must meet the specifications of the American National Standards Institute (ANSI), which include other and more stringent specifications than those required by the FDA.

The ANSI standard, adopted by the Occupational Safety and Health Administration (OSHA) specified that industrial safety lenses be at least 3mm in thickness and capable of withstanding an impact from a 1-inch diameter steel ball dropped 50 inches. Safety frames are also specified.

Compliance with the approved standard in compulsory eye protection areas shall be enforced.

BUMEDNOTE 5350 of 22 Mar 73

*Subj: BUMED Equal Opportunity
Assistant, Establishment of*

The billet of Equal Opportunity Assistant to the Chief, BUMED, has been established to provide an advisor and assistant in matters related to minority group members of the Medical Department. One primary function of this position is that of serving on a consultative basis as an advisor and assistant to commanding officers of BUMED command activities in the confrontation and elimination of racism and its associated problems. 

† In Memoriam †

CAPT William L. Schafer Jr., MC, USN (Ret.) died 4 Apr at the Circle Terrace Hospital, Alexandria, Va. He was born in Alexandria on 22 Feb 1899. Dr. Schafer attended Strayer Business College in Virginia and subsequently served with the U.S. Army in England and France during World War I. In 1925 he graduated from the George Washington University Medical School and received a master's degree in public health from Harvard University in 1940. He was a veteran of both world wars.

CAPT Schafer served with the Navy in World War II.

A graduate of the school of aviation medicine in Pensacola, Fla., he served 46 months in the Pacific and was the first physician to treat CAPT Eddie Rickenbacker after Rickenbacker had been rescued from a life raft during the war. Among many decorations received by CAPT Schafer was the Bronze Star.

After the war Dr. Schafer returned to Alexandria as health officer, the position from which he retired in 1948. He then returned to Naval service, being promoted to CAPT on 1 Mar 1948. He later became the medical director of the U.S. Army Research and Development Laboratories at Ft. Belvoir. In Mar 1961 his name was placed on the Retired List.

He is survived by his wife, Rachel, who resides in Alexandria, Va.

CAPT Thomas D. Stephenson, DC, USN died 19 Mar in Ridgecrest, Calif., as a result of injuries sustained in a fall. He was born in Chicago, Ill., on 2 Nov 1925. CAPT Stephenson attended Northwestern University while an Inactive Reservist and enlisted in the Navy as a Pharmacist Mate in Mar 1945. After a year at the University of Detroit, he was commissioned an ENS, USNR. In Oct 1945 he entered the University of Michigan School of Dentistry, from which he received his D.D.S. degree in 1949. He was commissioned LTJG in the U.S. Navy Dental Corps in June 1949.

CAPT Stephenson served aboard the USS *Cavalier* as Dental Officer from Mar 1950 to Nov 1952, and in Jun 1953 he completed the General Postgraduate course at the Naval Dental School, NNMC, Bethesda, Md. Along with other varied assignments, CAPT Stephenson was Assistant Dental Officer at the Naval Academy in Annapolis and Chief of the Dental Service at the Naval Hospital in Annapolis from Dec 1953 to Jun 1954. In June 1955 he completed a residency in Oral Surgery at Naval Hospital Philadelphia. He was promoted to the rank of CAPT on 1 Jul 1966, and also served as Commanding Officer of the 3rd Dental Company in 1968-1969. His most recent assignment was that of dental officer at the Naval Weapons Center, China Lake, Calif.

CAPT Stephenson was President of the Panama Canal Zone Dental Society, a constituent society of the American Dental Association, from 1962 to 1963. He was

awarded the Vietnamese Staff Service Honor Medal, 1st Class, and Combat Action Ribbon. CAPT Stephenson held the WW II Victory Medal, Navy Occupation Medal with Asia clasp, Korean Service Medal with 3 stars, Korean Presidential Unit Citation, China Service Medal, United Nations Medal with Korea clasp, Vietnam Service Medal (FMF Combat Insignia with 2 stars), Republic of Vietnam Campaign Medal & Device, and the National Defense Service Medal with 1 star.

CAPT Stephenson is survived by his wife, Shirley; one son; and two daughters.

CAPT Charles R. Tatum, MC, USN (Ret.) died of a myocardial infarction on 18 Mar at the Naval Hospital San Diego, Calif. Born in Madison County, Va., on 21 Aug 1890, he was 83 years old at the time of his death. CAPT Tatum graduated from the University of Virginia Medical School in 1916, was first commissioned a LT (jg), MC, USNR on 5 Nov 1917, and subsequently augmented.

Following brief assignments at several naval hospitals, CAPT Tatum served as Medical Officer in USS *Brazos*. He was the Force Medical Officer in USS *Bushnell*, 1934-1936, and the Senior Medical Officer in USS *Wharton* in 1940-1941. He was promoted to CAPT on 16 Jun 1942.

CAPT Tatum subsequently served as Executive Officer of the USN Mobile Hospital No. 7, Jul 1942-Jan 1944; and as Assistant Chief of Materiel Division, Bureau of Medicine and Surgery and XO, Medical Support Depot, Brooklyn, from Feb 1944 to Dec 1945. At the Medical Support Depot, Pearl Harbor, he served as Medical Officer in Command from Jan 1946 to Jul 1948. In Aug 1948 he became Senior Medical Officer at the Naval Shipyard San Francisco, and on 1 Aug 1952 CAPT Tatum's name was placed on the Retired List.

CAPT Tatum was a Fellow of the American College of Surgeons and a member of the American Medical Association. He held the World War I Victory Medal, the American Defense Service Medal, American Area Medal, Asiatic-Pacific area Medal, and the World War II Victory Medal.

CAPT Tatum is survived by his wife, Mary, who resides in San Diego, Calif. ♀

UNITED STATES NAVY MEDICINE

CORRESPONDENCE AND CONTRIBUTIONS from the field are welcomed and will be published as space permits, subject to editing and possible abridgment. All material should be submitted to the Editor, *U.S. NAVY MEDICINE*, Code 18, Bureau of Medicine and Surgery, Washington, D.C. 20372.

NOTICES should be received not later than the third day of the month preceding the desired month of publication.

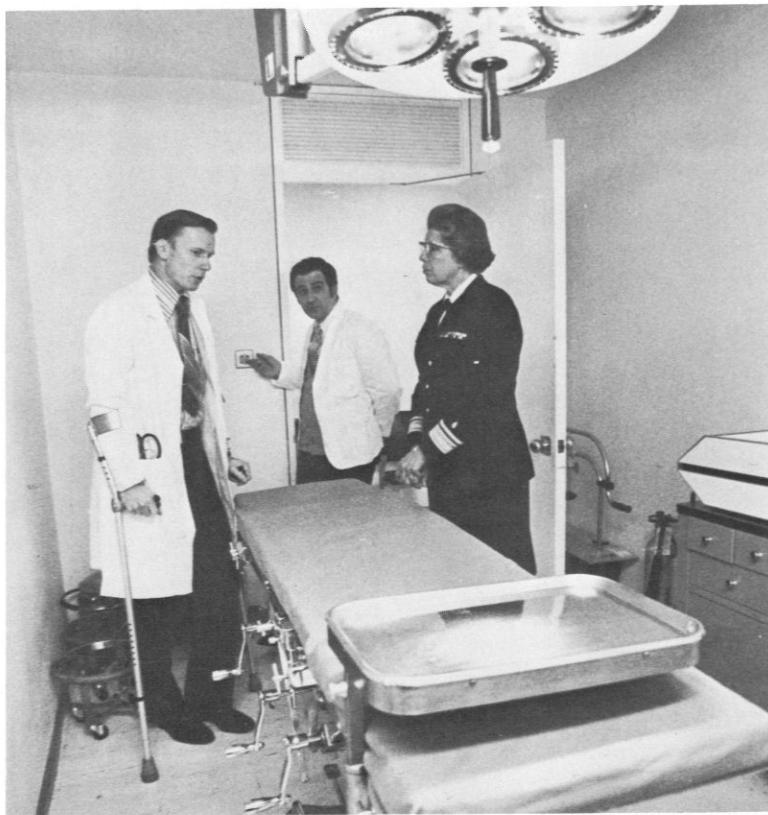
PROFESSIONAL PAPERS AND ARTICLES should be typewritten on one side of the paper, double spaced, with liberal margins. Original and one carbon copy are required. Generic names of drugs are preferred. If the author's present affiliation differs from that under which the reported work was done, both should be given. Unless otherwise indicated, it will be assumed that the article presented has not been previously printed or delivered elsewhere. Papers which have been delivered or printed elsewhere, covered by copyright, cannot be reprinted in *NAVY MEDICINE* without the written permission of the author(s) and copyright holder. It is the responsibility of the author(s) to inform *U.S. NAVY MEDICINE* when the material submitted has been previously used or copyrighted. In selecting manuscripts for publication in *NAVY MEDICINE*, preference is given to original articles.

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SUGGESTIONS are invited concerning *U.S. NAVY MEDICINE*, its content and form.

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Senior physician at the Navy Dispensary in London, England, CAPT Thomas Beach, MC, USN (left) discusses the surgical facilities there with RADM Alene B. Duerk, NC, USN (right), Director of the Navy Nurse Corps. HMC Rick Drake, USN (center) accompanied the officers on a tour of the dispensary. RADM Duerk toured Naval medical activities in Europe and northern Africa during March and April. (Photo by PH1 Bob Woods, USN.)

U.S. NAVY MEDICINE